SOLICITATION, OFFER AND AWARD

1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700)	RATING	PAGE	OF	PAGES
	D0-C9	1		24

2. CONTRACT NUMBER	3. SOLICITATION NUMBER	4. TYPE OF SOLICITATION	5. DATE ISSUED	6. REQUISITION/PURCHASE NUMBER
	N00173-05-R-DB02	☐ SEALED BID (IFB) ☒ NEGOTIATED (RFP)	11 Apr 05	76-0074-05

7. ISSUED BY CODE N00173

Naval Research Laboratory
4555 Overlook Ave., SW
Washington, DC 20375

8. ADDRESS OFFER TO *(If other than Item 7)*

NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder".

SOLICITATION

9. Sealed offers in original and 3 copies for furnishing the supplies or services in the Schedule will be received at the place specified in Item 8, or if handcarried, in the depository located in See Section L-2 until 4:00 pm *(Hour)* local time 13 May 05 *(Date)*

CAUTION - LATE Submissions, Modifications, and Withdrawals: See Section L, Provision No. 52.214-7 or 52.215-1. All offers are subject to all terms and conditions contained in this solicitation.

10. FOR INFORMATION CALL:	A. NAME	B. TELEPHONE *(NO COLLECT CALLS)* AREA CODE	NUMBER	EXT.	C. E-MAIL ADDRESS
	Dan Brinkworth	202	767-6746		dan.brinkworth@nrl.navy.mil

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OFFER *(Must be fully completed by offeror)*

NOTE: Item 12 does not apply if the solicitation includes the provisions at 52.214-16, Minimum Bid Acceptance Period.

12. In compliance with the above, the undersigned agrees, if this offer is accepted within _____ calendar days *(60 calendar days unless a different period is inserted by the offeror)* from the date for receipt of offers specified above, to furnish any or all items upon which prices are offered at the price set opposite each item, delivered at the designated point(s), within the time specified in the schedule.

13. DISCOUNT FOR PROMPT PAYMENT *(See Section I, Clause No. 52.232-8)*	10 CALENDAR DAYS (%)	20 CALENDAR DAYS (%)	30 CALENDAR DAYS (%)	CALENDAR DAYS (%)

14. ACKNOWLEDGMENT OF AMENDMENTS *(The offeror acknowledges receipt of amendments to the SOLICITATION for offerors and related documents numbered and dated)*:	AMENDMENT NO.	DATE	AMENDMENT NO.	DATE

15A. NAME AND ADDRESS OF OFFEROR — CODE _____ FACILITY _____

16. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER *(Type or print)*

15B. TELEPHONE NUMBER AREA CODE	NUMBER	EXT.	☐ 15C. CHECK IF REMITTANCE ADDRESS IS DIFFERENT FROM ABOVE - ENTER SUCH ADDRESS IN SCHEDULE.	17. SIGNATURE	18. OFFER DATE

AWARD *(To be completed by Government)*

19. ACCEPTED AS TO ITEMS NUMBERED	20. AMOUNT	21. ACCOUNTING AND APPROPRIATION

22. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION:
☐ 10 U.S.C. 2304(c) ( ) ☐ 41 U.S.C. 253(c) ( )

23. SUBMIT INVOICES TO ADDRESS SHOWN IN *(4 copies unless otherwise specified)* ITEM

24. ADMINISTERED BY *(If other than Item 7)* CODE _____

25. PAYMENT WILL BE MADE BY CODE _____

26. NAME OF CONTRACTING OFFICER *(Type or print)*	27. UNITED STATES OF AMERICA *(Signature of Contracting Officer)*	28. AWARD DATE

IMPORTANT - Award will be made on this Form, or on Standard Form 26, or by other authorized official written notice.

PART I - THE SCHEDULE
SECTION B
SUPPLIES OR SERVICES AND PRICES/COSTS

B-1 SUPPLIES/SERVICES AND COSTS

ITEM NUMBER	SUPPLIES/SERVICES	ESTIMATED COST	FIXED FEE	ESTIMATED COST PLUS FIXED FEE
0001	The Contractor shall conduct research in accordance with Section C.	$	$	$
0002	Data in accordance with Exhibit A (DD 1423)	* NSP	* NSP	* NSP
TOTAL ESTIMATED COST PLUS FIXED FEE			$	$ $

* *Not Separately Priced*

NOTICE TO OFFERORS: In addition to inserting the estimated cost and fixed fee for the base year above, the estimated cost and fixed fee for each optional extension of the term of the contract are to be inserted in Section H.

SECTION C
DESCRIPTION/SPECIFICATIONS/STATEMENT OF WORK

C-1 STATEMENT OF WORK

The work and services to be performed hereunder shall be subject to the requirements and standards contained in Attachment (1), Statement of Work, with Exhibit A, Contract Data Requirements List, and all other Attachments cited in Section J, which are incorporated by reference into Section C.

C-2 REQUIREMENTS FOR ON-SITE CONTRACTORS

For those portions of the work under this contract performed at any NRL site, the contractor shall comply with the Requirements for On-Site Contractors dated 30 July 2004 which are hereby incorporated by reference. The full text is available at http://heron.nrl.navy.mil/contracts/home.htm.

SECTION D
PACKAGING AND MARKING

D-1 PACKAGING AND MARKING

Preservation, packaging, packing and marking of all deliverable contract line items must conform to normal commercial packing standards to assure safe delivery at destination.

SECTION E
INSPECTION AND ACCEPTANCE

E-1 INSPECTION AND ACCEPTANCE CLAUSES INCORPORATED BY REFERENCE

FAR CLAUSE		TITLE
52.246-9	-	Inspection Of Research And Development (Short Form) (APR 1984)

DFARS CLAUSE		TITLE
252.246-7000	-	Material Inspection And Receiving Report (MAR 2003)

E-2 INSPECTION AND ACCEPTANCE

Inspection and acceptance of the final delivery will be accomplished by the Technical Manager (TM) or Contracting Officer Representative (COR) designated in Section G of this contract. Inspection and acceptance will be performed at the Naval Research Laboratory, Washington DC 20375-5320.

SECTION F
DELIVERIES OR PERFORMANCE

F-1 DELIVERIES OR PERFORMANCE CLAUSES INCORPORATED BY REFERENCE:

FAR CLAUSE		TITLE
52.242-15	-	Stop-Work Order (AUG 1989) - Alternate I (APR 1984)
52.247-34	-	F.O.B. Destination (NOV 1991)

F-2 PERIOD AND PLACE OF PERFORMANCE

(a) The term of this contract is from date of contract awardthrough twelve (12) months.Option periods, if exercised by the Government shall commence upon the completion of the proceeding period of performance and continue through twelve (12) months
(b) The principal place of performance of this contract shall be at the contractor’s facility.

SECTION G
CONTRACT ADMINISTRATION DATA

G-1 PROCURING OFFICE REPRESENTATIVE

In order to expedite administration of the contract, the Administrative Contracting Officer (ACO) will direct inquiries to the appropriate office listed below. Please do not direct routine inquiries to the person listed in Item 20A on Standard Form 26.

Security Matters- Contracting Officer for Security, Code 1221, (202) 767-2240, DSN 297-2240, email security-group@nrl.navy.mil

Safety Matters- Head Safety Branch, Code 3540, (202) 767-2232, DSN 297-2232, email safety@nrl.navy.mil

Patent Matters-Associate Counsel (Intellectual Property), Code 1008.2, (202) 404-1552, DSN 297-1552, email patents@nrl.navy.mil

Release of Data-Public Affairs Officer, Code 1030 (202) 767-2541, DSN 297-2541, email publicaffairs@nrl.navy.mil

G-2 CONTRACTING OFFICER'S REPRESENTATIVE (COR) - FUNCTIONS AND LIMITATIONS

* is hereby designated the cognizant COR who will represent the Contracting Officer in the administration of technical details within the scope of this contract and inspection and acceptance. The COR is not otherwise authorized to make any representations or commitments of any kind on behalf of the Contracting Officer or the Government. The COR does not have the authority to alter the Contractor's obligations or change the specifications in the contract. If, as a result of technical discussions, it is desirable to alter contract obligations or statements of work, a modification must be issued in writing and signed by the Contracting Officer. The COR is responsible for reviewing the bills and charges submitted by the Contractor and informing the ACO of areas where exceptions are to be taken.

*(* To be completed at time of award)*

G-3 TECHNICAL DIRECTION MEMORANDUM (TDM)

(a) For the purposes of this clause, technical direction includes the following:
- (1) Direction to the Contractor which shifts work emphasis between work areas or tasks, requires pursuit of certain lines of inquiry, fills in details or otherwise describes work which will accomplish the objectives described in the statement of work;
- (2) Guidelines to the Contractor, which assist in interpretation of drawings, specifications or technical portions of, work description.

(b) Technical instructions must be within the scope of work stated in the contract. Technical instructions may not be used to:
- (1) Assign additional work under the contract:
- (2) Direct a change as defined in the contract clause entitled "Changes";
- (3) Increase or decrease the estimated contract cost, the fixed fee, or the time required for contract performance; or
- (4) Change any of the terms, conditions or specifications of the contract

(c) The TDM shall be written by the Contracting Officer's Representative (COR), with the original given to the Contractor and a copy retained in the CORs file. Technical direction may be issued orally only in emergency situations. If technical direction is issued orally, a TDM must follow within two (2) working days from the date of the oral direction. Amendments, corrections, or changes to TDMs shall also be in written format and shall include all the information set forth in paragraph (e) below.
(d) A TDM shall be considered issued when the Government deposits it in the mail, or if transmitted by other means, when it is physically delivered to the contractor.
(e) TDMs shall include, but not be limited to, the following information:
(1) Date of TDM,
(2) Contract Number,
(3) Reference to the relevant portion or item in the Statement of Work,
(4) The specific technical direction or clarification, and
(5) The signature of the COR.
(f) CORs shall retain all files containing TDMs for a period of two (2) years after the final contract completion date.
(g) The only individual authorized in any way to amend or modify any of the terms of this contract shall be the Contracting Officer. When, in the opinion of the Contractor, any technical direction calls for effort outside the scope of the contract or inconsistent with this special provision, the Contractor shall notify the Contracting Officer in writing within ten (10) working days after its receipt.

G-4 SUBCONTRACTORS/CONSULTANTS

(a) Advance notification or requests for consent pursuant to the contract clause entitled "Subcontracts" (FAR 52.244-2) shall be directed to the cognizant administrative contracting officer (ACO).
(b) The following subcontractors/consultants have been identified in the Contractor's proposal as necessary for performance of this contract:

Subcontractor/Consultant Name	Estimated Cost

(*Paragraph (b) will be included and filled in at time of award if subcontractor/consultants are proposed by the successful offeror)*

G-5 INCREMENTAL FUNDING

Pursuant to the Limitation of Funds clause (FAR 52.232-22), the total amount allotted to this contract is $* and it is estimated that this amount is sufficient for contract performance through * .
*(*this provision will be included and completed at time of award, if applicable)*

G-6 INFORMATIONAL SUBLINE ITEMS

It is anticipated that the research and development services performed under this contract will be paid for from multiple sources of funds. Informational subline items will be established as necessary to identify each accounting citation classification.

G-7 SPECIAL PAYMENT INSTRUCTIONS- MULTIPLE ACCOUNTING CLASSIFICATION CITATIONS (COST-REIMBURSEMENT)

Payments shall be made in accordance with the ACRN(s) cited on the contractor's invoice. The Contractor may contact the COR regarding which ACRN(s) to cite on an invoice.

G-8 PAYMENT AND INVOICE INSTRUCTIONS (COST REIMBURSEMENT)

Submission of Invoices

The contractor shall submit invoices and any necessary supporting documentation to the contract auditor at the following address:

*(*To be completed at time of award)*

Following verification, the contract auditor will forward the invoice to the designated payment office for payment in the amount determined to be owing, in accordance with the applicable payment (and fee) clauses(s) of this contract.

The contractor shall provide an information copy of each invoice submitted to the COR identified in Section G.

A DD Form 250 "Material Inspection and Receiving Report" is required only with the final invoice.

The contractor's final invoice shall be identified as such, and shall list all other invoices (if any) previously tendered under this contract.

Pursuant to DFARS 242.803(b)(i)(c), if the cognizant Government auditor has notified the contractor of its authorization to do so, the contractor may submit vouchers under this contract direct to the payment office shown in Block 12 of SF 26 instead of to the address shown above. Such authorization does not extend to the first and final vouchers. The contractor shall continue to submit first vouchers to the cognizant auditor shown above. The final voucher shall be submitted to the Administrative Contracting Officer (SF 26, Block 6) with a copy to the cognizant auditor.

SECTION H
SPECIAL CONTRACT REQUIREMENTS

H-1 TYPE OF CONTRACT

This is a *

*(*To be completed at time of award)*

H-2 ONR 5252.237-9705 - KEY PERSONNEL (DEC 88)

(a) The Contractor agrees to assign to the contract tasks those persons whose resumes were submitted with its proposal and who are necessary to fulfill the requirements of the contract as "key personnel". No substitutions may be made except in accordance with this clause.

(b) The Contractor understands that during the first ninety (90) days of the contract performance period, no personnel substitutions will be permitted unless these substitutions are unavoidable because of the incumbent's sudden illness, death or termination of employment. In any of these events, the Contractor shall promptly notify the Contracting Officer and provide the information described in paragraph (c) below. After the initial ninety (90) day period the Contractor must submit to the Contracting Officer all proposed substitutions, in writing, at least thirty (30) days in advance (sixty (60) days if security clearance must be obtained) of any proposed substitution and provide the information required by paragraph (c) below.
(c) Any request for substitution must include a detailed explanation of the circumstances necessitating the proposed substitution, a resume for the proposed substitute, and any other information requested by the Contracting Officer. Any proposed substitute must have qualifications equal to or superior to the qualifications of the incumbent. The Contracting Officer or his/her authorized representative will evaluate such requests and promptly notify the Contractor of his/her approval or disapproval thereof.
(d) In the event that any of the identified key personnel cease to perform under the contract and the substitute is disapproved, the contract may be immediately terminated in accordance with the Termination clause of the contract.
The following are identified as key personnel: *

*(*To be completed at time of award)*

Labor Category	First/M/Last Name

H-3 ONR 5252.216-9706 - LEVEL OF EFFORT (DEC 88)

(a) The Contractor agrees to provide the total level of effort specified in the next sentence in performance of the work described in this contract. The total level of effort for performance of this contract shall be **96,900**hours of direct labor for the base year and 96,900 hours for each option year if exercised by the Government, including subcontractor direct labor for those subcontractors specifically identified in the Contractor's proposal as having hours included in the proposed level of effort. A breakdown of labor categories and hours is set forth in paragraph (k) below.
(b) The level of effort for this contract shall be expended at an average rate of 8,075 hours per month. It is understood and agreed that the rate of hours per month may fluctuate in pursuit of the technical objective, provided such fluctuation does not result in the use of the total hours of effort prior to the expiration of the term of the contract.
(c) The Contractor is required to notify the Contracting Officer when any of the following situations occur, or are anticipated to occur: If during any three consecutive months the monthly average is exceeded by 25% or, if at any time it is forecast that during the last three months of the contract less than 50% of the monthly average will be used during any given month; or, when 85% of the total level of effort has been expended.
(d) If, during the term of the contract, the Contractor finds it necessary to accelerate the expenditure of direct labor to such an extent that the total hours of effort specified would be used prior to the expiration of the term, the Contractor shall notify the Contracting Officer in writing, setting forth the

acceleration required, the probable benefits which would result, and an offer to undertake the acceleration at no increase in the estimated cost or fixed fee together with an offer setting forth a proposed level of effort, cost breakdown, and proposed fixed fee for continuation of the work until expiration of the term hereof. The offer shall provide that the work proposed will be subject to the terms and conditions of this contract and any additions or changes required by then current law, regulations, or directives, and that the offer, with a written notice of acceptance by the Contracting Officer, shall constitute a binding contract. The Contractor shall not accelerate any effort until receipt of such written approval by the Contracting Officer. Any agreement to accelerate will be formalized by contract modification.

(e) The Contracting Officer may, by written order, direct the Contractor to accelerate the expenditure of direct labor such that the total hours of effort specified in paragraph (a) above would be used prior to the expiration of the term. This order shall specify the acceleration required and the resulting revised term. The Contractor shall acknowledge this order within five days of receipt.

(f) If the total level of effort specified in paragraph (a) above is not provided by the Contractor during the term of this contract, the Contracting Officer shall either (i) reduce the fixed fee of this contract as follows:

$$\text{Fee Reduction} = \text{Fixed Fee} \times \frac{\text{Required LOE Hours - Expended LOE Hours}}{\text{Required LOE Hours}}$$

or (ii) subject to the provisions of the clause of this contract entitled "Limitation of Cost," require the Contractor to continue to perform the work until the total number of hours of direct labor specified in paragraph (a) shall have been expended, at no increase in the fixed fee of this contract.

(g) In the event the government fails to fully fund the contract in a timely manner, the term of the contract may be extended accordingly with no change to cost or fee. If the government fails to fully fund the contract, the fee will be adjusted in direct proportion to that effort which was performed.

(h) Notwithstanding any of the provisions in the above paragraphs, the Contractor may furnish hours up to five percent in excess of the total hours specified in paragraph (a) above, provided that the additional effort is furnished within the term hereof, and provided further that no increase in the estimated cost or fixed fee is required, and no adjustment in the fixed fee shall be made provided that the Contractor has delivered at least 95% of the level of effort required in paragraph (a) above.

(i) It is understood that the mix of labor categories provided by the Contractor under the contract, as well as the distribution of effort among those categories, may vary considerably from the initial mix and distribution of effort which was estimated by the government or proposed by the Contractor.

(j) Nothing herein shall be construed to alter or waive any of the rights or obligations of either party pursuant to the Clause entitled "Limitation of Costs" or "Limitation of Funds," either of which clauses as incorporated herein applies to this contract.

(k) The anticipated breakdown by labor category of the total level of effort for each year is as follows:

Labor Category	Hours
Sr. Program Manager	1,900
Project Manager/Project Leader	7,600
Scientist	5,700
Guidance and Control Engineer	3,800
Sr. Systems Engineer	5,700
Sr. Engineer Software	7,600
Engineer Software	5,700
Sr. Engineer Hardware	7,600
Electronics Engineer , GD&S	5,700

Mechanical Engineer GD&S	3,800
Engineer Parts Specialist	1,900
Project Analyst	5,700
Sr. Engineering Technician	7,600
Sr. Technical Writer	5,700
Graphics Artist Support	3,800
Admin and Clerical Support	7,600
Information Technology & Computer Support	7,600
Program Scheduling	1,900

H-4 ONR 5252.235-9714 - REPORT PREPARATION (FEB 02)

Scientific or technical reports prepared by the Contractor and deliverable under the terms of this contract will be prepared in accordance with format requirements contained in ANSI/NISO Z39.18-1995, Scientific and Technical Reports: Elements, Organization, and Design.

[NOTE: All NISO American National Standards are available as free, downloadable pdf(s) at http://www.niso.org/standards/index.html . NISO standards can also be purchased in hardcopy form from NISO Press Fulfillment, P. O. Box 451, Annapolis Junction, MD 20701-0451 USA. Telephone U.S. and Canada: (877) 736-6476; Outside the U.S. and Canada: 301-362-6904 ax: 301-206-9789.]

H-5 ELECTRONIC AND INFORMATION TECHNOLOGY (EIT)

In accordance with Section 508 of the Rehabilitation Act of 1973 (29 U.S.C. 794d), all EIT supplies and services provided under this contract must comply with the applicable accessibility standards issued by the Architectural and Transportation Barriers Compliance Board at 36 CFR part 1194 (see FAR Subpart 39.2). Electronic and information technology (EIT) is defined at FAR 2.101.

H-6 OPTION TO EXTEND THE TERM OF THE CONTRACT

This contract shall be renewable at the unilateral option of the Government by the Contracting Officer giving written notice of renewal to the Contractor within the existing term of the contract. The Government may exercise its option to renew the contract a total of four (4) times and each such renewal shall extend the term of the contract by twelve (12) months. The Contractor agrees that performance under each such renewal shall be accomplished in accordance with all of the terms and conditions of this contract and at the estimated cost and fixed fee set forth below:

First Option

Estimated Cost:	$
Fixed Fee:	$
Estimated Cost Plus Fixed Fee:	$

Second Option

Estimated Cost:	$
Fixed Fee:	$
Estimated Cost Plus Fixed Fee:	$

Third Option

Estimated Cost:	$
Fixed Fee:	$
Estimated Cost Plus Fixed Fee:	$

Fourth Option

Estimated Cost:	$
Fixed Fee:	$
Estimated Cost Plus Fixed Fee:	$

H-7 ON-SITE USE OF GOVERNMENT PROPERTY

It is anticipated that Government property will be used by the contractor's personnel in the performance of that portion of the contract performed on-site at the U.S. Naval Research Laboratory (NRL) including any of its field sites. Such use will be on a rent free basis and all such property shall be considered to remain in the possession and control of the NRL for property responsibility and accountability purposes.

H-8 REPRESENTATIONS AND CERTIFICATIONS

The Contractor’s completed Representations, Certifications, and Other Statements of Offerors or Respondents is incorporated herein by reference in any resultant award.

PART II - CONTRACT CLAUSES
SECTION I
CONTRACT CLAUSES

I-1 FAR 52.252-2 - CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es):

http://www.arnet.gov/far
http://heron.nrl.navy.mil/contracts/home.htm

a. FEDERAL ACQUISITION REGULATION CLAUSES

FAR CLAUSE		TITLE
52.202-1	-	Definitions (JUL 2004)
52.203-3	-	Gratuities (APR 1984)
52.203-5	-	Covenant Against Contingent Fees (APR 1984)
52.203-6	-	Restrictions On Subcontractor Sales To The Government (JUL 1995)
52.203-7	-	Anti-Kickback Procedures (JUL 1995)
52-203-8	-	Cancellation, Rescission, And Recovery Of Funds For Illegal Or Improper Activity (JAN 1997)
52.203-10	-	Price Or Fee Adjustment For Illegal Or Improper Activity (JAN 1997)
52.203-12	-	Limitation On Payments To Influence Certain Federal Transactions (JUN 2003)
52.204-2	-	Security Requirements (AUG 1996)
52.204-4	-	Printed Or Copied Double-Sided On Recycled Paper (AUG 2000)
52.209-6	-	Protecting The Government's Interest When Subcontracting With Contractors Debarred, Suspended, Or Proposed For Debarment (JAN 2005)
52.211-15	-	Defense Priority And Allocation Requirements (SEP 1990)
52.215-2	-	Audit And Records-Negotiation (JUN 1999)
52.215-8	-	Order Of Precedence - Uniform Contract Format (OCT 1997)
52.215-10	-	Price Reduction For Defective Cost Or Pricing Data (OCT 1997)
52.215-11	-	Price Reduction For Defective Cost Or Pricing Data - Modifications (OCT 1997)
52.215-12	-	Subcontractor Cost Or Pricing Data (OCT 1997)
52.215-13	-	Subcontractor Cost Or Pricing Data Modifications (OCT 1997)
52.215-14	-	Integrity Of Unit Prices (OCT 1997)
52.215-15	-	Pension Adjustments And Asset Reversions (OCT 2004)
52.215-17	-	Waiver Of Facilities Capital Cost Of Money (OCT 1997) (*will be included if the successful offeror does not propose facilities capital cost of money)*
52.215-18	-	Reversion Or Adjustment Of Plans For Post-Retirement Benefits (PRB) Other Than Pensions (OCT 1997)
52.215-19	-	Notification Of Ownership Changes (OCT 1997)
52.215-21	-	Requirements For Cost Or Pricing Data Or Information Other Than Cost or Pricing Data -Modifications (OCT 1997)
52.216-7	-	Allowable Cost And Payment (DEC 2002) (fill in 30th
52.216-8	-	Fixed-Fee (MAR 1997)

52.219-4 - Notice Of Price Evaluation Preference For HUBZone Small Business Concerns (OCT 2004) ☐ Offeror elects to waive the evaluation preference.
52.219-6 - Notice Of Total Small-Business Set-Aside (JUN 2003)
52.219-8 - Utilization Of Small Business Concerns (MAY 2004)
52.219-14 - Limitations On Subcontracting (DEC 1996)
52.222-2 - Payment For Overtime Premiums (JUL 1990) -The Use Of Overtime Is Authorized Under This Contract If The Overtime Premium Does Not Exceed ”0”
52.222-3 - Convict Labor (JUN 2003)
52.222-21 - Prohibition Of Segregated Facilities (FEB 1999)
52.222-26 - Equal Opportunity (APR 2002)
52.222-35 - Equal Opportunity For Special Disabled Veterans, Veterans Of The Vietnam Era, And Other Eligible Veterans (DEC 2001)
52.222-36 - Affirmative Action For Workers With Disabilities (JUN 1998)
52.222-37 - Employment Reports On Special Disabled Veterans, Veterans Of The Vietnam Era, And Other Eligible Veterans (DEC 2001)
52.222-39 - Notification Of Employee Rights Concerning Payment Of Union Dues Or Fees (DEC 2004)
52.223-3 - Hazardous Material Identification And Material Safety Data (JAN 1997)
52.223-5 - Pollution Prevention And Right-To-Know Information (AUG 2003)
52.223-6 - Drug-Free Workplace (MAY 2001)
52.223-10 - Waste Reduction Program (AUG 2000)
52.223-14 - Toxic Chemical Release Reporting (AUG 2003)
52.225-13 - Restrictions On Certain Foreign Purchases (DEC 2003)
52.227-1 - Authorization And Consent (JUL 1995)- Alternate I (APR 1984)
52.227-2 - Notice And Assistance Regarding Patent And Copyright Infringement (AUG 1996)
52.227-10 - Filing Of Patent Application- Classified Subject Matter (APR 1984)
52.227-11 - Patent Rights - Retention By The Contractor (Short Form) (JUN 1997) (*will be included if the successful offeror is a small business or a non-profit organization)*
52.228-7 - Insurance - Liability To Third Persons (MAR 1996)
52.232-9 - Limitation On Withholding Of Payments (APR 1984)
52.232-17 - Interest (JUN 1996)
52.232-20 - Limitation Of Cost (APR 1984) *(Applicable when the contract or task order is fully funded)*
52.232-22 - Limitation Of Funds (APR 1984) *(Applicable when the contract or task order is not fully funded)*
52.232-23 - Assignment Of Claims (JAN 1986) Alternate I (APR 1984)
52.232-25 - Prompt Payment (OCT 2003)
52.232-33 - Payment By Electronic Funds Transfer-Central Contractor Registration (OCT 2003)
52.233-1 - Disputes (JUL 2002) - Alternate I (DEC 1991)
52.233-3 - Protest After Award (AUG 1996) - Alternate I (JUN 1985)
52.233-4 - Applicable Law For Breach Of Contract Claim (OCT 2004)
52.237-2 - Protection Of Government Buildings, Equipment And Vegetation (APR 1984)
52.242-1 - Notice Of Intent To Disallow Costs (APR 1984)
52.242-3 - Penalties For Unallowable Costs (MAY 2001)
52.242-4 - Certification of Final Indirect Costs (JAN 1997)
52.242-13 - Bankruptcy (JUL 1995)
52.243-2 - Changes - Cost-Reimbursement (AUG 1987) - Alternate V (APR 1984)

52.243-7 - Notification Of Changes (APR 1984)fill in 30
52.244-2 - Subcontracts (AUG 1998) - Alternate I (AUG 1998)
52.244-5 - Competition In Subcontracting (DEC 1996)
52.244-6 - Subcontracts For Commercial Items (DEC 2004)
52.245-5 - Government Property (Cost-Reimbursement, Time-And-Material, Or Labor-Hour Contracts) (JUN 2003) (DEVIATION)
52.245-18 - Special Test Equipment (FEB 1993)
52.246-23 - Limitation Of Liability (FEB 1997)
52.247-1 - Commercial Bill Of Lading Notations (APR 1984)
52.247-63 - Preference For U. S. Flag Carriers (JUN 2003)
52.249-6 - Termination (Cost-Reimbursement) (MAY 2004)
52.249-14 - Excusable Delays (APR 1984)
52.251-1 - Government Supply Sources (APR 1984)
52.252-6 - Authorized Deviations in Clauses (APR 1984)(fill in Defense Federal Acquisition Regulation Supplement (48 CFR Chapter 2))
52.253-1 - Computer Generated Forms (JAN 1991)

b. DEPARTMENT OF DEFENSE FEDERAL ACQUISITION REGULATION CLAUSES

DFARS CLAUSE TITLE
252.201-7000 - Contracting Officer's Representative (DEC 1991)
252.203-7001 - Prohibition On Persons Convicted Of Fraud Or Other Defense Contract Related Felonies (DEC 2004)
252.203-7002 - Display Of DoD Hotline Poster (DEC 1991)
252.204-7000 - Disclosure Of Information (DEC 1991)
252.204-7003 - Control Of Government Personnel Work Product (APR 1992)
252.204-7004 - Alternate A (NOV 2003)
252.204-7005 - Oral Attestation Of Security Responsibilities (NOV 2001)
252.205-7000 - Provision Of Information To Cooperative Agreement Holders (DEC 1991)
252.209-7004 - Subcontracting With Firms That Are Owned Or Controlled By The Government Of A Terrorist Country (MAR 1998)
252.215-7000 - Pricing Adjustments (DEC 1991)
252.215-7002 - Cost Estimating System Requirements (OCT 1998)
252.223-7004 - Drug-Free Work Force (SEP 1988)
252.223-7006 - Prohibition On Storage And Disposal Of Toxic And Hazardous Materials (APR 1993)
252.225-7001 - Buy American Act And Balance Of Payments Program (APR 2003)
252.225-7002 - Qualifying Country Sources As Subcontractors (APR 2003)
252.225-7012 - Preference For Certain Domestic Commodities (JUN 2004)
252.225-7013 - Duty Free Entry (JAN 2005)
252.225-7031 - Secondary Arab Boycott Of Israel (APR 2003)
252.226-7001 - Utilization of Indian Organizations, Indian-Owned Economic Enterprises, And Native Hawaiian Small Business Concerns (OCT 2003)
252.227-7000 - Non Estoppel (OCT 1966)
252.227-7001 - Release Of Past Infringement (AUG 1984)
252.227-7013 - Rights In Technical Data -- Noncommercial Items (NOV 1995)
252.227-7014 - Rights In Noncommercial Computer Software And Noncommercial Computer Software Documentation (JUN 1995)

252.227-7016 - Rights In Bid Or Proposal Information (JUN 1995)
252.227-7019 - Validation Of Asserted Restrictions--Computer Software (JUN 1995)
252.227-7030 - Technical Data--Withholding Of Payment (MAR 2000)
252.227-7034 - Patents--Subcontracts (APR 1984)
252.227-7037 - Validation Of Restrictive Markings On Technical Data (SEP 1999)
252.227-7039 - Patents--Reporting Of Subject Inventions (APR 1990)
252.231-7000 - Supplemental Cost Principles (DEC 1991)
252.232-7003 - Electronic Submission Of Payment Requests (JAN 2004)
252.235-7010 - Acknowledgment Of Support And Disclaimer (MAY 1995)
252.235-7011 - Final Scientific Or Technical Report (NOV 2004)
252.242-7000 - Post Award Conference (DEC 1991)
252.243-7002 - Requests For Equitable Adjustment (MAR 1998)
252.244-7000 - Subcontracts For Commercial Items And Commercial Components (DOD Contracts) (MAR 2000)
252.245-7001 - Reports Of Government Property (MAY 1994)
252.246-7001 - Warranty Of Data (DEC 1991)
252.247-7023 - Transportation Of Supplies By Sea (MAY 2002)
252.247-7024 - Notification Of Transportation Of Supplies By Sea (MAR 2000)
(will be included if the successful offeror made a negative response to the inquiry at DFARS 252.247-7022)
252.251-7000 - Ordering From Government Supply Sources (OCT 2002)

I-2 FAR 52.223-11 - OZONE-DEPLETING SUBSTANCES (MAY 2001)

(a) *Definitions.* “Ozone-depleting substance”, as used in this clause, means any substance the Environmental Protection Agency designates in 40 CFR Part 82 as –

(1) Class I, including, but not limited to, chlorofluorocarbons, halons, carbon tetrachloride, and methyl chloroform; or
(2) Class II, including, but not limited to, hydrochlorofluorocarbons.

(b) The Contractor shall label products which contain or are manufactured with ozone-depleting substances in the manner and to the extent required by 42 U.S.C. 7671j (b), (c), and (d) and 40 CFR Part 82, Subpart E, as follows:

WARNING

Contains (or manufactured with, if applicable) * , a substance(s) which harm(s) public health and environment by destroying ozone in the upper atmosphere.

*The Contractor shall insert the name of the substance(s).

PART III - LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS
SECTION J
LIST OF ATTACHMENTS

J-1 Attachment (1) - Statement Of Work and enclosure (1) –13 and 6 Pages respectively, With Exhibit A - DD Form 1423, Contract Data Requirements List, 2 Pages.

J-2 Attachment (2) - DD Form 254, Contract Security Classification Specification, Ser 071-04 Dated 20041203 2 Pages.

J-3 Attachment ( ) – Accounting and Appropriation Data- 1 page. *

(To be included at time of award)*

PART IV - REPRESENTATIONS AND INSTRUCTIONS
SECTION - K
REPRESENTATIONS, CERTIFICATIONS
AND OTHER STATEMENTS OF OFFERORS OR RESPONDENTS

K-1 Representations, Certifications, and Other Statements of Offerors or Respondents

In accordance with FAR 4.1201, prospective contractors must complete electronic annual federal representations and certifications via the Online Representations and Certifications Application (ORCA) at http://orca.bpn.gov in conjunction with required registration in the Central Contractor Registration (CCR) http://www.ccr.gov database. The representations and certification must be updated as necessary, but at least annually, to ensure they are kept current, accurate and complete.

In addition, each offeror must submit completed DFARS and contract specific Representations, Certifications, and Other Statements Of Offerors or Respondents with its proposal which is available electronically in full text at http://heron.nrl.navy.mil/contracts/repsandcerts.htm .
Use Contract Representations and Certifications: A

K-2 FILL IN FOR FAR 52.219-1 - SMALL BUSINESS PROGRAM REPRESENTATIONS (APR 2002)

The fill in information is as follows:

The NAICS code for this acquisition is 54710
The small business size standard is. 500

SECTION L
INSTRUCTIONS CONDITIONS AND NOTICES TO OFFERORS OR RESPONDENTS

L-1 FAR 52.252-1 SOLICITATION PROVISIONS INCORPORATED BY REFERENCE (FEB 1998)

This solicitation incorporates one or more solicitation provisions by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. The offeror is cautioned that the listed provisions may include blocks that must be completed by the offeror and submitted with its quotation or offer. In lieu of submitting the full text of those provisions, the offeror may identify the provision by paragraph identifier and provide the appropriate information with its quotation or offer. Also, the full text of a solicitation provision may be accessed electronically at this/these address(es):

http://www.arnet.gov/far
http://heron.nrl.navy.mil/contracts/home.htm

FAR CLAUSE		TITLE
52.204-6	-	Data Universal Numbering System (DUNS) Number (OCT 2003)
52.204-7	-	Central Contractor Registration (OCT 2003)
52.204-8	-	Annual Representations and Certifications (JAN 2005)
52.211-2	-	Availability Of Specifications Listed In The DOD Index Of Specifications And Standards (DoDISS) And Descriptions Listed In The Acquisition Management Systems And Data Requirements Control List, DoD 5010.12-L (DEC 2003)
52.214-34	-	Submission Of Offers In The English Language (APR 1991)
52.214-35	-	Submission Of Offers In U.S. Currency (APR 1991)
52.215-1	-	Instructions To Offerors- Competitive Acquisition (JAN 2004)
52.215-16	-	Facilities Capital Cost Of Money (JUN 2003)
52.222-24	-	Preaward On-Site Equal Opportunity Compliance Evaluation (FEB 1999)
52.237-10	-	Identification Of Uncompensated Overtime (OCT 1997)

DFAR CLAUSE	TITLE
252.209-7001	Disclosure Of Ownership Or Control By The Government Of A Terrorist Country (SEP 2004)
252.211-7005	Substitutions For Military Or Federal Specifications And Standards (FEB 2003)

L-2 INSTRUCTIONS FOR SUBMISSION OF PROPOSALS/OFFERS

All proposals shall be submitted in accordance with FAR 52.215-1- *Instructions to Offerors-Competitive Acquisition.* Proposals/offers submitted in paper media through the United States Postal Service (USPS) or delivery services shall be addressed to:

Contracting Officer, ATTN: Code 3230DB
Naval Research Laboratory(NRL)
4555 Overlook Avenue, S.W.
Washington, D.C. 20375

Solicitation/RFP No. – N00173-05-R-DB02
Closing Date: 13 May 2005 Time 4:00 PM

Proposals may be hand delivered to the Contracting Office, NRL, 4555 Overlook Avenue, S.W., Washington, D.C. 20375, Building 222, Room 115 between the hours of 8AM until 4PM, local time, excluding weekends and federal holidays. NRL is a controlled-access facility. Photo identification will be required. Report first to Building 72, Visitor Control for access to NRL. After receiving a Visitor Pass, proceed directly to Building 222, Room 115, Contracting Office Receptionist to deliver the proposal. All offerors shall allow sufficient time for delivery of their proposal to the Contracting Office prior to the closing date and time announced in the solicitation. Directions and additional information about NRL is available at http://www.nrl.navy.mil/aboutdc.htm

If facsimile proposals are authorized, contracting officers may request offeror(s) to provide the complete; original signed proposal at a later date.

L-3 FAR 52.211-14 - NOTICE OF PRIORITY RATING FOR NATIONAL DEFENSE USE (SEP 1990)

Any contract awarded as a result of this solicitation will be a ☐ DX rated order; ☒ DO rated order certified for national use under the Defense Priorities and Allocations system (DPAS) (15 CFR 700), and the Contractor will be required to follow all of the requirements of this regulation.

L-4 FAR 52.215-20 REQUIREMENTS FOR COST OR PRICING DATA OR INFORMATION OTHER THAN COST OR PRICING DATA (OCT 1997)

(a) *Exceptions from cost or pricing data*. (1) In lieu of submitting cost or pricing data, offerors may submit a written request for exception by submitting the information described in the following subparagraphs. The Contracting Officer may require additional supporting information, but only to the extent necessary to determine whether an exception should be granted, and whether the price is fair and reasonable.

(i) *Identification of the law or regulation establishing the price offered*. If the price is controlled under law by periodic rulings, reviews, or similar actions of a governmental body, attach a copy of the controlling document, unless it was previously submitted to the contracting office.

(ii) *Commercial item exception.* For a commercial item exception, the offeror shall submit, at a minimum, information on prices at which the same item or similar items have previously been sold in the commercial market that is adequate for evaluating the reasonableness of the price for this acquisition. Such information may include--

(A) For catalog items, a copy of or identification of the catalog and its date, or the appropriate pages for the offered items, or a statement that the catalog is on file in the buying office to which the proposal is being submitted. Provide a copy or describe current discount policies and price lists (published or unpublished), e.g., wholesale, original equipment manufacturer, or reseller. Also explain the basis of each offered price and its relationship to the established catalog price, including how the proposed price relates to the price of recent sales in quantities similar to the proposed quantities.

(B) For market priced items, the source and date or period of the market quotation or other basis for market price, the base amount, and applicable discounts. In addition, describe the nature of the market.

(C) For items included on an active Federal Supply Service Multiple Award Schedule contract, proof that an exception has been granted for the schedule item.

(2) The offeror grants the Contracting Officer or an authorized representative the right to examine, at any time before award, books, records, documents, or other directly pertinent records to verify any request for an exception under this provision, and the reasonableness of price. For items priced using catalog or market prices, or law or regulation, access does not extend to cost or profit

information or other data relevant solely to the offeror's determination of the prices to be offered in the catalog or marketplace.

(b) *Requirements for cost or pricing data*. If the offeror is not granted an exception from the requirement to submit cost or pricing data, the following applies:

(1) The offeror shall prepare and submit cost or pricing data and supporting attachments in accordance with Table 15-2 of FAR 15.408.

(2) As soon as practicable after agreement on price, but before contract award (except for unpriced actions such as letter contracts), the offeror shall submit a Certificate of Current Cost or Pricing Data, as prescribed in FAR 15.406-2.

L-5 FAR 52.216-1 - TYPE OF CONTRACT (APR 1984)

The Government contemplates award of a Cost Plus Fixed Fee Term contract resulting from this solicitation.

L-6 FAR 52.222-18 – CERTIFICATION REGARDING KNOWLEDGE OF CHILD LABOR FOR LISTED END PRODUCTS (FEB 2001)

The fill-in information is as follows:

Listed End Product	Listed Countries of Origin

FAR 52.233-2 - SERVICE OF PROTEST (AUG 1996)

(a) Protests, as defined in Section 33.101 of the Federal Acquisition Regulation, that are filed directly with an agency, and copies of any protests that are filed with the General Accounting Office (GAO) shall be served on the Contracting Officer (addressed as follows) by obtaining written and dated acknowledgment of receipt from the Control Desk, Code 3200, Bldg. 222, Rm. 115, Naval Research Laboratory, 4555 Overlook Ave., S.W., Washington DC 20375-5326.

(b) The copy of any protest shall be received in the office designated above within one day of filing a protest with the GAO.

L-8 DFARS 252.227-7017 - IDENTIFICATION AND ASSERTION OF USE, RELEASE, OR DISCLOSURE RESTRICTIONS (JUN 1995)

(a) The terms used in this provision are defined in following clause or clauses contained in this solicitation—

(1) If a successful offeror will be required to deliver technical data, the Rights in Technical Data--Noncommercial Items clause, or, if this solicitation contemplates a contract under the Small Business Innovative Research Program, the Rights in Noncommercial Technical Data and Computer Software--Small Business Innovative Research (SBIR) Program clause.

(2) If a successful offeror will not be required to deliver technical data, the Rights in Noncommercial Computer Software and Noncommercial Computer Software

Documentation clause, or, if this solicitation contemplates a contract under the Small Business Innovative Research Program, the Rights in Noncommercial Technical Data and Computer Software--Small Business Innovative Research (SBIR) Program clause.

(b) The identification and assertion requirements in this provision apply only to technical data, including computer software documents, or computer software to be delivered with other than unlimited rights. For contracts to be awarded under the Small Business Innovative Research Program, the notification requirements do not apply to technical data or computer software that will be generated under the resulting contract. Notification and identification is not required for restrictions based solely on copyright.

(c) Offers submitted in response to this solicitation shall identify, to the extent known at the time an offer is submitted to the Government, the technical data or computer software that the Offeror, its subcontractors or suppliers, or potential subcontractors or suppliers, assert should be furnished to the Government with restrictions on use, release, or disclosure.

(d) The Offeror's assertions, including the assertions of its subcontractors or suppliers or potential subcontractors or suppliers shall be submitted as an attachment to its offer in the following format, dated and signed by an official authorized to contractually obligate the Offeror:

Identification and Assertion of Restrictions on the Government's Use, Release, or Disclosure of Technical Data or Computer Software.

The Offeror asserts for itself, or the persons identified below, that the Government's rights to use, release, or disclose the following technical data or computer software should be restricted:

Technical Data Computer Software to be Furnished With Restrictions*	Basis for Assertion **	Asserted Rights Category ***	Name of Person Asserting Restrictions****
(List)*****	(List)	(List)	(List)

* For technical data (other than computer software documentation) pertaining to items, components, or processes developed at private expense, identify both the deliverable technical data and each such items, component, or process. For computer software or computer software documentation identify the software or documentation.

** Generally, development at private expense, either exclusively or partially, is the only basis for asserting restrictions. For technical data, other than computer software documentation, development refers to development of the item, component, or process to which the data pertain. The Government's rights in computer software documentation generally may not be restricted. For computer software, development refers to the software. Indicate whether development was accomplished exclusively or partially at private expense. If development was not accomplished at private expense, or for computer software documentation, enter the specific basis for asserting restrictions.

*** Enter asserted rights category (e.g., government purpose license rights from a prior contract, rights in SBIR data generated under another contract, limited, restricted, or government purpose rights under this or a prior contract, or specially negotiated licenses).

**** Corporation, individual, or other person, as appropriate.

***** Enter "none" when all data or software will be submitted without restrictions.

Date _____
Printed Name and Title _____
_____
Signature _____

(End of identification and assertion)

(e) An offeror's failure to submit, complete, or sign the notification and identification required by paragraph (d) of this provision with its offer may render the offer ineligible for award.

(f) If the Offeror is awarded a contract, the assertions identified in paragraph (d) of this provision shall be listed in an attachment to that contract. Upon request by the Contracting Officer, the Offeror shall provide sufficient information to enable the Contracting Officer to evaluate any listed assertion.

L-9 DFARS 252.227-7028 - TECHNICAL DATA OR COMPUTER SOFTWARE PREVIOUSLY DELIVERED TO THE GOVERNMENT (JUN 1995)

The Offeror shall attach to its offer an identification of all documents or other media incorporating technical data or computer software it intends to deliver under this contract with other than unlimited rights that are identical or substantially similar to documents or other media that the Offeror has produced for, delivered to, or is obligated to deliver to the Government under any contract or subcontract. The attachment shall identify - -

(a) The contract number under which the data or software were produced;

(b) The contract number under which, and the name and address of the organization to whom, the data or software were most recently delivered or will be delivered; and

(c) Any limitations on the Government's rights to use or disclose the data or software, including, when applicable, identification of the earliest date the limitations expire.

L-10 GOVERNMENT-FURNISHED PROPERTY

No material, labor, or facilities will be furnished by the Government unless provided for in the solicitation.

L-11 INQUIRIES CONCERNING THE RFP

Any questions concerning the RFP must be submitted in writing to the Contracting Officer at the location noted in blocks 7 and 9 of the Standard Form 33, "Solicitation, Offer and Award," no less than fifteen (15) days before closing. The Government will not consider questions received after this date. Offerors are cautioned against directing any questions concerning this RFP to technical personnel at the Naval Research Laboratory.

L-12 PROPOSAL ORGANIZATION

(1) Information for the technical/management proposal shall be placed in Volume I and be completely separate from the business proposal (Volume II).

(2) Proposal Format and Length - No attempt is made to restrict the proposal format and style. However, the proposal should be written and organized so as to be compatible with the RFP, the Statement of Work, company's organization and accounting structure, and proposed cost estimate. Offerors are encouraged to use recycled paper and maximize the use of double sided

copying when preparing responses to solicitations.

L-13 VOLUME I - TECHNICAL/MANAGEMENT PROPOSAL

REQUIRED COPIES: 1 ORIGINAL AND 3 COPIES .

(1) Include a matrix indicating proposed labor hours by skill category required to perform the statement of work. This matrix shall not contain labor rates or any other indication of price.
(2) The following information is required for evaluation of your technical/management :

Technical Subfactor (1) Qualifications of Project Personnel: The offeror should provide convincing proof that it is has, or has the ability to obtain, personnel with relevant experience in the task areas described in the Statement of Work. These are highly specialized fields and personnel without actual experience in these areas are not acceptable. The Statement of Work sets forth the desired qualifications. In particular, the proposal should indicate specific persons and their qualifications and experience in each task area of the Statement of Work, and the amount of effort each will be performing on the contract. It is essential for the offeror to demonstrate that all key personnel will be capable of obtaining a top secret clearance. The proposal will include each person's education level, experience (both general and project related), and software and hardware specific knowledge when appropriate. The proposal must show the availability of sufficient key project professional and technical personnel by the prime contractor as well as any proposed subcontractors and consultants.

Technical Subfactor (2 Company Experience: Proposal should provide a narrative description of company experience on projects with scientific and technical tasks similar to those required in the Statement of Work. This description should clearly show: (1) the relationship between the company's experience and the tasks required under the Statement of Work, (2) prior or current programs in the task areas, and (3) the project schedule, plans for each task, and approach to each particular scientific task. Prior experience should be identified by citing contracting agency, period of performance of the contract, and a summary of the nature of the work.
Technical Subfactor (3 Management Capability: The proposal must provide a narrative description of company management experience on projects with scientific and technical tasks similar to those required in the Statement of Work. This description should clearly show previous performance at meeting instrument performance, cost and schedule goals on these projects.

PAST PERFORMANCE INFORMATION
(a) Offerors shall submit the following information as part of their proposal. *(Offerors are encouraged to submit the information prior to other parts of the proposal to assist the government in reducing the length of the evaluation period.)* List the last two (2) contracts or subcontracts completed by the offeror or predecessor companies during the past three (3) years for services similar in nature to this requirement. Include in the two (2) contracts any current contracts or subcontracts for similar services that were awarded at least one year prior to the date of this solicitation. Offerors that have no similar previous or current contracts should provide the requested information for proposed subcontractors that will perform major or critical aspects of the requirement or for the proposed project manager or key personnel responsible for major or critical aspects of the requirement.

1. Name of contracting organization.
2. Contract number
3. Contract type

4. Total contract value
5. Description of the contract work
6. Contracting officer and telephone number
7. Contracting officer's representative, program manager, or similar official and telephone number

(b) Offerors shall contact the contracting organizations identified pursuant to paragraph (a) as soon as possible and request them to send past performance information on the identified contracts to the address in Block 7 of the face page of this solicitation. The past performance report which is available electronically in full text at http://heron.nrl.navy.mil/contracts/home.htm is to be provided to the contracting organization for this purpose. If the contracting organization has already collected past performance information on the contract pursuant to FAR Subpart 42.15, the format used to collect the information may be used instead of the past performance report.
(c) Offerors may include in their proposals specific information relating to problems encountered in performing the identified contracts and any corrective actions by the offeror. Offerors should not provide general information on their performance on the identified contracts as this will be obtained from the contracting organizations.

L-14 VOLUME II - BUSINESS PROPOSAL

REQUIRED COPIES: 1 ORIGINAL AND 3 COPIES

(1) COST PROPOSAL

The offeror shall submit a business proposal that includes a cost proposal with supporting information for each cost element consistent with offeror's cost accounting system. The supporting breakdown should include such elements as materials, direct labor, indirect cost, and other costs such as travel. In addition, the contractor shall provide a soft copy of the cost proposal readable by Excel. The offeror shall provide exhibits as necessary to substantiate each cost element. Should rates be used in the proposal which are not DCAA approved, the offeror shall provide complete documentation and the rationale for their use at time of proposal submission. However, offerors are advised to use actual labor rates of proposed personnel as the basis for estimating labor costs when practicable. The Government estimates material and travel cost to be $550K and $75K respectively for each year. The offeror shall include the estimated material and travel cost plus applicable indirect cost in their proposal.

SECTION M
EVALUATION FACTORS FOR AWARD

M-1 EVALUATION

Award will be made to that offeror whose proposal is determined to be the best value to the Government, proposed cost and other factors considered. The Government reserves the right to make award to other than the low offeror. The technical considerations are more important than the cost factor. The closer the technical scores of the various proposals are to one another, the more important the cost considerations become.

M-2 EVALUATION FACTORS FOR AWARD

Proposals will be evaluated in accordance with the following criteria. The first two technical factors are listed in decending order of importance and the final two are equal in importance. When all technical factors are combined they are more important than the cost factor.

M-2-1

1. Qualifications of Project Personnel: The proposal will be evaluated on the offeror's demonstrated ability to provide personnel with:

(1) the appropriate qualifications set forth in the Statement of Work;

(2) actual relevant experience in the task areas set forth in the Statement of Work; and

(3) the ability to obtain a secret clearance prior to commencing work.

2. Company Experience: The proposal will be evaluated on the offeror's demonstrated company experience in performing projects requiring scientific and technical effort with is closely similar or related to the technical and scientific efforts set forth in the Statement of Work

3. Management Capability: The proposal will be evaluated on the offeror's demonstrated management ability and success in managing projects of similar complexity and duration as that set forth in the Statement of Work.

4. PAST PERFORMANCE
Past performance will be evaluated on the basis of the quality of the work performed, timeliness of performance, cost control, and business relations. The evaluation will be based on the information provided pursuant to Section L and other sources if available. The evaluation will take into account past performance information regarding predecessor companies, subcontractors that will perform major or critical aspects of the requirement, or the proposed project manager or key personnel responsible for major or critical aspects of the requirement. Offerors that have no relevant performance history or for which past performance information is not available will not be evaluated favorably or unfavorably on past performance. The government may begin proposal evaluation prior to receipt of past performance information. If, after completion of proposal evaluation except evaluation of past performance, the contracting officer determines that evaluation of past performance will not affect the outcome of competitive selection, the contracting officer may waive its evaluation in accordance with FAR 15.304(c)(3)(iv).

M-2-2 COST TO THE GOVERNMENT

Proposed estimated cost to the Government. The Government may adjust the proposed cost for purposes of evaluation based upon an evaluation of cost realism. Cost Realism means that the costs in an offeror's proposal are realistic for the work to be performed; reflect a clear understanding of the requirements; and are consistent with the various elements of the offeror's technical proposal. The cost realism evaluation includes an analysis of the adequacy of the hours, labor mix, and other direct costs to perform the work as proposed in the technical proposal as well as the proposed labor and indirect rates. It also includes evaluation of the likelihood that

the risks inherent in the offeror's technical approach will result in higher actual costs than anticipated.

M-3 FAR 52.217-5 - EVALUATION OF OPTIONS (JUL 1990)

Except when it is determined in accordance with FAR 17.206(b) not to be in the Government's best interests, the Government will evaluate offers for award purposes by adding the total price for all options to the total price for the basic requirement. Evaluation of options will not obligate the Government to exercise the option(s).

Statement of Work,

Research and Development Services

1. INTRODUCTION

1.1. Background

The Naval Research Laboratory (NRL) is the Navy's corporate laboratory for conducting basic and applied research in the space sciences. NRL supports a number of terrestrial and space experiments in the areas of upper atmospheric, solar, and astronomical research from a variety of airborne, balloon, rocket, and space platforms. Major research thrust areas include ultraviolet remote sensing of the upper atmosphere, spectrographic studies of the solar atmosphere, and astronomical radiation ranging from ultraviolet through cosmic rays. The results are of importance to a fundamental understanding of natural radiation and geophysical phenomena in the space environment, radio communications, and ultimately to the operation of Naval ships and aircraft. Ongoing and planned research includes remote sensing of the upper atmosphere, battlespace environmental models, studies of the Sun, and studies of galactic gamma-ray sources.

To conduct these investigations, technical support is needed for the design, fabrication, assembly, testing, and calibration of experiments, scientific instrument structures, components, subsystems, support equipment, and related field operations. Tasks include computer modeling, experiment design, data analysis, instrument packaging, payload testing, and field deployments. Furthermore, technical expertise is required for the analysis of data obtained from these investigations. New computer programs must be written and existing software must be modified and documented. Among the scientific instrument modeling, simulation, development, data acquisition, reduction, and analysis efforts are the following activities:

- *Phenomenology:* Activities associated with experimental and modeled data of background, target, and environmental phenomena relating to the design and performance of strategic, theater, and tactical military systems.
- *Upper Atmospheric Physics:* Investigations to study and understand the energetics, dynamics, and state of the near-space environment, to sense the middle and upper atmospheric regions with space-based state-of-the-art detectors, and to develop new techniques for remote sensing of "space weather" on a global scale.
- *Gamma Ray, X-Ray, and Cosmic-Ray Emissions:* Investigations relating to the gamma ray and cosmic ray environment and the use of gamma ray and energetic particle detection systems in space.
- *Solar Terrestrial Relationships:* Investigations to advance the understanding of the origin of the outer solar atmosphere, the corona, and the coupling between the fine magnetic structure at the photosphere and the dynamic processes occurring in the corona.

2. Scope

The purpose of this Statement of Work (SOW) is to acquire scientific, engineering, and related services to the Space Sciences Division (SSD) and related organizations, as required, for the

formulation, design, development, fabrication, integration, testing, verification, operation, and data analysis of spaceflight and ground system hardware and software, including the development and validation of technologies to enable future science missions. To this end, the Contractor shall provide on/off-site multi-disciplinary scientific and engineering services, pursuant to Technical Direction Memorandums (TDM) issued by the Contracting Officer's Representative (COR). TDM may be issued to perform services in all aspects of mission and instrument development and implementation for components, subsystems, systems, scientific instruments, observatories, launch, ground system, spacecraft, and suborbital craft (e.g., sounding rockets, UAVs, balloons, and aircraft), including Shuttle, Space Station, free-flying spacecraft, and suborbital payloads, as well as Ground Support Equipment (GFE), simulators, non-flight models and prototypes; candidate, feasibility, and systems definition studies; project planning, direction, and control; systems engineering; analysis; preliminary and detailed design; fabrication; assembly; integration and test; test and verification; calibration; test instrumentation; data systems management; launch and post-launch operations; research and technology unique to the intended use; phenomenology; data reduction; documentation; maintenance; sustaining engineering; configuration management; safety, reliability, and quality assurance (SR&QA); architectural trades; performance, cost, and risk assessment; and systems safety.

The Contractor shall provide technical and scientific support within the scope of this SOW. Task deliverables will consist of scientific, engineering, and related technical services, documentation, data, equipment, and materials according to the TDM and the Contract Data Requirements List (CDRL) of the base contract. The tasks shall involve activities both on-site and off-site of NRL and may require extensive travel. The Contractor shall provide the requisite personnel, supplies, materials, and equipment and shall provide scientific, engineering, technical, and analytical capabilities for the conceptualization, system engineering, design and development, and analysis of ongoing and proposed experiments, projects, and programs. The Contractor shall perform the design, fabrication, assembly, integration, test, calibration, and operation of sophisticated scientific instruments, experimental payloads, and their support equipment. This effort shall include the development and documentation of software in laboratory and operational environments. The Contractor shall provide scientific and engineering skills to support spaceflight, launch vehicle, sounding rocket, aircraft, and ground sensor systems, including payload processing and vehicle integration, GSE, mission planning, and operations. The Contractor shall perform data processing, reduction, cataloging, archiving, and distribution. The Contractor shall provide design, development, fabrication, integration, test, calibration, and operation of flight instrumentation and related equipment that are required to collect, analyze, archive, and distribute scientific data.

3. REQUIREMENTS

The Contractor shall perform the tasks and deliver all supplies, equipment, and items as set forth herein.

3.1. Management, Control, and Reporting

The Contractor shall provide the management, control, and reporting functions necessary to manage, direct, control, and track the accomplishment of the SOW efforts. The Contractor management, control, and reporting efforts shall support SOW efforts from concept development, systems engineering, development, prototyping, fabrication, test, calibration, mission operation, and data reduction. These responsibilities shall also include efficient cost management methods as well as procedures to ensure that the Government is aware of task status and progress achieved. The

Contractor shall be responsible for ensuring all Contractor and subcontractor personnel engaged in the performance of this SOW have appropriate qualifications, knowledge, and certification to perform work pursuant to the TDM. The Contractor shall designate one employee to serve as the Project Leader. The Project Leader shall be the point of contact for all technical performance issues, receiving direction from and providing responses to the Contracting Officer's Representative (COR). Additionally, the Government desires that one or more on-site employees shall be designated with the responsibility of supervising and directing the Contractor's on-site employees. The Contractor shall maintain liaison with COR and shall keep the COR well informed of contract efforts (i.e., technical, managerial, financial) with monthly and quarterly reports, by telephone, and on-site visits. The Contractor shall prepare and submit periodic reports on the management, control, and reporting functions (see Table 1).

Table 1 – Reporting on Management and Control Functions

Name of Report	Contents
Quarterly Status Report (QSR)	The QSR shall provide a brief narrative status of the technical process and status of each major task effort, any significant technical or project-specific problems, and the proposed resolution of the identified problem areas. The QSR shall identify any items that have affected or will affect schedule performance, cost, or task schedules. The QSR shall provide a status of materials, supplies, subcontracts, Government Furnished Materials or Equipment (GFM/GFE), and Contract Data Requirements List (CDRL) items for the duration of the effort. The reports shall be in the Contractor's format as approved by the COR. Submission in electronic formats compatible with MS-Office are acceptable.
Monthly Financial Status Report (MFSR)	The MFSR shall contain a detailed financial report. The monthly cost shall be broken down by task. The MFSR shall show the number of hours for each employee and/or sub Contractor with labor overhead, G&A, and fee costs. Details for the current period and total accrued cost shall be given. Expenses (e.g., travel, materials, and training) shall be reported separately for each employee and/or sub Contractor showing the overhead, G&A, and fee costs. If an employee and/or sub Contractor worked on more than one task (as defined by the COR), then the accounting for each task shall be shown separately. The MFSR shall include a listing of all materials, services, and supplies procured by the Contractor, along with a physical description, estimated price, and actual price. The report shall be in the Contractor's format as approved by the COR. Submission in electronic formats compatible with MS-Office are acceptable.
On-Site Labor Report (OLR)	The Contractor shall provide an OLR by the fifth workday of each month for the preceding month. The report shall include the following: reporting period, contract number, contract value, current funding, date submitted, and labor (including sub Contractors) showing employee name and the number of hours worked on-site at NRL. If an employee and/or sub Contractor worked on more than one task (as defined by the COR) then the accounting for each task shall be shown separately. The report shall be in the Contractor's format as approved by the COR.

Name of Report	Contents
Scientific and Technical Reports and Final Report	Scientific and Technical Reports, including a Contract Final Report, will be prepared as directed by the COR. Reports shall be prepared according to the guidelines of ANSI/NISO Z39.18-1995, *Scientific and Technical Reports-Elements, Organization, and Design.* Distribution of resultant documents to the Defense Technical Information Center (DTIC) shall be through NRL distribution channels.
Technical Documentation	The Contractor shall provide Technical Documentation on COR request that shall include: engineering logbooks, designs, schematics, requirements documentation, procedures, systems block diagrams, field integration documents, interface control documents, as-built drawings, contamination, cleanliness, quality assurance, and test results.
Software and Hardware Documentation	In-code documentation shall be provided for all software. The in-code documentation shall include instructions for the user; in particular the locations of needed data files. A separate User's Guide shall be produced for interactive programs having many options. All software will be provided as files on NRL computers, and must be able to run on these designated computers. Hardware produced or modified under this statement of work shall be accompanied by documentation for maintenance and operation.

3.2. Security and Safety Compliance

The Contractor shall comply with all NRL safety and security requirements with respect to all Contractor employees located at NRL, including the NRL Occupational Safety and Health Manual, 5100.13C, and the NRL Security Manual, 5510.40D. The Contractor shall establish the appropriate measures to accomplish these requirements.

3.3. Technical and Programmatic Documentation

The Contractor shall provide the personnel, equipment, and facilities necessary to perform the technical and project documentation efforts. The activities required under this task shall include: (a) developing project plans and related briefings; (b) performing configuration management and data management functions; (c) generating technical documentation; (d) supporting Project Design Reviews; and (e) performing documentation review and evaluation.

a) The Contractor shall prepare and maintain program status, technical, and programmatic presentations for conferences, program, or review meetings. Logistical or administrative support shall be provided for various meetings, reviews, and conferences. The Contractor shall develop and provide briefings in the form of graphics transparencies and slides, posterboard charts, multi-media videos, or other specified media. Data to be produced shall include viewgraphs and slides, videos, brochures, publications, photographs, webpages and websites, and briefing materials supporting program and project objectives.

b) The Contractor shall compose technical summaries and reports of surveys, investigations, or fact-finding efforts. The Contractor shall highlight documents or

information reviewed or referenced; organizations contacted; a summary of efforts undertaken; key progress and accomplishments, problems, or findings; and appropriate recommendations, conclusions, and action items taken.

c) The Contractor shall provide publications support by preparing visually effective briefing materials, video and multimedia presentations, programmatic and technical documentation, along with the necessary planning and coordination, to keep NRL personnel and the sponsoring agency informed of applicable program and technical information.

d) The Contractor shall be responsible for technical writing and editing tasks associated with the development of flight hardware, software, and GSE. The Contractor shall prepare and maintain technical documentation including analysis reports; specifications and ICDs; design descriptions for both hardware and software; test plans, procedures, and reports; documentation and parts list; and drawing packages providing for a system baseline. The Contractor shall use computer-aided techniques for documents, specifications, plans, procedures, drawings, test data, operating instructions, electrical and electronic schematics, and reference data. The Contractor shall review and edit documents, manuals, reports, and documentation for accuracy, literacy, and technical content. The Contractor shall deliver all documentation in both hard copy and on electronic media. The Contractor shall provide technical data packages documenting these designs.

e) The Contractor shall participate in the technical review of the development process, including System Requirements Review (SRR), Preliminary Design Review (PDR), Critical Design Review (CDR), and Final Design Review. The Contractor shall also participate in unit level design reviews and supplemental design reviews on systems and subsystems.

f) The Contractor shall obtain, store, maintain, and reproduce technical data needed to fulfill the SOW requirements.

g) The Contractor shall provide complete documentation for all software developed.

3.4. Concept Development and System Engineering

The Contractor shall provide scientific and engineering services for mission concept development that integrate the aspects of instrument systems, flight systems, ground systems, and launch systems. The Contractor shall provide study services for the conceptual development of subsystems and systems, and shall participate in the identification of scientific objectives, mission requirements, and technical concepts. Study products shall include, but not be limited to, integration of joint missions and other collaborative efforts; research, science, technology, and cost trade studies; candidate operation and system architectures; cost, schedule, and risk estimates; and research and technology unique to the system development.

a) The Contractor shall provide scientific and engineering expertise for the functional analysis, interface definition, interoperability, design alternatives, and performance assessments for proposed and on-going scientific investigations and experiments. The Contractor shall analyze systems, perform evaluations of systems interfaces, and participate in system definition and development.

b) The Contractor shall evaluate experiments and testing of generic subsystems and components for applicability to specific scientific investigations. This effort shall include ongoing flight and non-flight instruments supporting exploratory and advanced development projects that are related to the NRL objectives in the areas of upper atmospheric, solar, and astronomical research. The Contractor shall conduct technical analyses for advanced sensing concepts. These shall identify and evaluate alternative technical issues, critical phases and potential problem areas, tradeoff studies with the attendant risk analyses, and specific recommendations for selected approaches.

c) The Contractor shall monitor and support systems engineering and design activities and related documentation, participate in the system design process, recommend architecture design alternatives, assess reliability, and perform system-engineering analyses. The Contractor shall prepare technical assessments, engineering analyses, and special investigations to identify, recommend, and implement resolutions of critical design or performance alternatives. The Contractor shall provide system level integration test plans and procedures, identify and report deficiencies, originate reviews for operations and maintenance procedures or checklists, support hardware and software reviews, and provide "quick-look" engineering analyses and studies. The Contractor shall provide technical expertise to organize, support, and conduct technical interchange meetings (TIM), Interface Control Working Group Meetings (ICWG), Project Management Reviews (PMR), design reviews, readiness reviews, and flight operations reviews.

3.5. Flight Electronics and Avionics

The Contractor shall provide systems and detailed engineering expertise to specify and document controllers and central processors using reduced instruction set computers (RISC), radiation-tolerant microprocessors, digital signal processors (DSP), Field Programmable Gate Arrays (FPGA), and microprocessor-based designs, as approved by the COR. The Contractor shall design, develop, procure, fabricate, assemble, integrate, and test analog-to-digital converters (ADC), flight processors, and embedded controllers for ground and spaceflight applications. The Contractor shall be responsible for the front-end electronics for various detector systems used in a variety of scientific instrumentation. The Contractor shall support the research, development and engineering efforts associated with the design, development, fabrication, testing, and delivery of Application Specific Integrated Circuits for scientific instrumentation capable of measuring the energy spectra of very high energy cosmic rays. The Contractor shall make maximum use of FPGA, their development systems, and standardized formats (e.g., VME, SEM-E, PCI) that enable reuse of designs among multiple flight instruments and experimental payloads. The Contractor shall maintain and use CAD tools for the design and simulation of FPGA designs.

3.5.1. Interface and Data Handling Electronics

The Contractor shall provide systems engineering and detailed technical expertise to specify, document, and develop specific interface and data handling electronics for sensors, detectors, storage, and electro-mechanical devices. The Contractor shall design, develop, procure, fabricate, assemble, integrate, and test these interface units for ground and spaceflight applications. The Contractor shall design, build, and test interface electronics and simulators to verify electronic subsystem functionality.

3.5.2. Circuit Card Design and Layout

The Contractor shall provide engineering skills required to design, lay out, and document layout of Printed Wiring Boards (PWB) and Printed Wiring Assemblies (PWA) using Computer Aided Design (CAD) software tools like ORCAD. Design and assembly practices shall be consistent with NRL mission and science requirements.

3.5.3. Backplanes, Power Converters, and Chassis Units

The Contractor shall provide systems and mechanical design engineering to define and specify electrical and mechanical requirements for backplanes, power converters, and chassis units. The Contractor shall design, develop, procure, fabricate, assemble, integrate, and test backplanes, power converters, and chassis systems for ground and spaceflight applications.

3.6. Software Systems

3.6.1. Software Engineering Support

The Contractor shall provide software engineering support and technical assistance for technology assessments. The Contractor shall make maximum use of existing NRL software packages for analyses where appropriate, and in cases where existing packages are inadequate, the Contractor shall design, develop, and maintain additional software analytical packages to address specific problem investigations. The Contractor shall develop and maintain databases for the efficient use of scientific data and shall provide for information transfer to other software systems.

3.6.2. Flight and Ground Software

The Contractor shall design, develop, fabricate, integrate, and test flight and ground software for use on existing and new flight instrumentation, experimental payloads, and their GSE. The flight code shall be developed using high order languages (e.g., C/C++). The Contractor shall provide software engineering expertise to develop the root and follow-on code supporting high-performance radiation-tolerant computer processor development, integration, and testing for flight applications. The Contractor shall take advantage of existing development facilities and resources, software designs, and related test capabilities. All new work shall be accomplished through extension or modification of current software systems and the developed software shall be appropriate for use in subsequent development projects. The Contractor shall establish a systematic software development process in consonance with the needs of the NRL and the flight instrument or experiment payload. The development process shall be described in a written plan that includes the following activities: development environment, systems requirements and analysis, system design, coding and unit testing, unit integration, qualification testing, and integral processes (e.g., change control). The Contractor shall make use of computer-aided software engineering (CASE) tools for documentation to the extent practical. Design approaches shall be presented during TIM and design reviews to assure correctness of the design and appropriateness of the software.

3.6.3. Modeling and Simulation Software

Ongoing NRL efforts are developing a single integrated capability to meet the broad needs of the ballistic missile defense community for high fidelity and physics-based models, including threat and environment signature generation for analysis, design, and hardware-in-the-loop testing. This system will initially incorporate and extend existing legacy knowledge and signature code functionality to meet the escalating demands for more and different signature products. It will use the latest

software technologies to facilitate different deployment modes from stand-alone workstations to multiple, heterogeneous, distributed computing environments. All developed software shall remain the property of the NRL. The Contractor shall contribute to documented studies, technical presentations, publications, authoritative assessments, and evaluations. All software shall be resident at the NRL. The Contractor shall formulate and prepare specific tasks, perform integration and test, and submit written documentation, including user guides, on the efforts related to this task. The Contractor shall produce training manuals and conduct user training for the task. The Contractor shall provide training to designated personnel on the system's operation and maintenance.

3.6.4. Ground Data Analysis Software

NRL investigators are developing remote sensing algorithms for extracting scientifically significant information from large data sets and performing the theoretical analysis required for interpretation of the resultant data. NRL theoretical modeling and research led to the design and development of instruments scheduled to fly aboard the USAF DMSP Block 5D-3 series of satellites. Operational Ground Data Analysis Software (GDAS) is under development to provide comprehensive space environmental data to the Space Forecast Center (SFC). The Contractor shall design, develop, test and verify, qualify, and install operational GDAS based on the Remote Sensing Algorithms (RSA). The Contractor shall use an object oriented analysis and programming development methodology. The developed software shall maintain compatibility with existing software suites. The Contractor shall provide options to use data obtained from the NRL Remote Atmospheric and Ionospheric Detection System (RAIDS) instrument, the High Resolution Airglow and Auroral Spectrograph (HIRAAS) instrument, and the Low Resolution Airglow and Auroral Spectrograph (LORAAS) instrument to calibrate and verify the GDAS algorithms and models. Alternative uses of the GDAS to meet other scientific and experimental payload needs shall be investigated.

3.6.5. Mission Planning, Scheduling, and Display Software

The Contractor shall provide software engineering capabilities to develop planning and scheduling tools to support on-orbit operations of and observations by scientific instruments. The software shall be capable of generating integrated schedules for spaceflight viewing and observations, space vehicle operations, and related communications support. The software shall provide a "quick-look" telemetry data display capability for the designated mission. The software shall be easily tailored for new applications by filling in database tables and generating a new user interface using commercially available development tools. The software shall provide telemetry and data displays. The software shall support pre-launch test operations and post-launch space vehicle and instrument engineering data trending requirements.

3.6.6. Software Development Process

The Contractor shall implement a software development process of its own design that will work in conjunction with each project's configuration management system. The Contractor's process shall assure the orderly control of software products. The Contractor shall provide an effective mechanism to incorporate software changes during development and operational use. Efforts shall include: (i) establishing an approved baseline configuration for the software (definition), (ii) maintaining configuration control over all changes in the baseline software (change control and processing), and (iii) providing traceability of the software baselines and changes to these baselines (configuration accounting).

3.7. Support Equipment (SE)

The development of ongoing and new instrumentation and experimental payloads requires the capability to test and characterize their operation and performance under ambient and stressing conditions. The Contractor shall provide the resources to design, develop, procure, fabricate, integrate, and test SE to support experimental payload checkout and verification. The SE shall simulate all instrument or payload interfaces with the space vehicle under the control of software to the maximum extent practical within schedule and budget constraints. The Contractor shall emphasize user friendliness through pull-down menus, automated testing, and compatibility with existing SE and common test equipment. The design approaches shall be presented during TIM and design reviews to assure correctness of the design and appropriateness of the SE for the end use. Technical documentation, including user guides, shall be developed as required to support users within the R&D community.

3.8. Flight Instrument Support

3.8.1. Multi-Disciplinary Analysis, Design, and Implementation Services

The Contractor shall provide services to design, develop, fabricate, assemble, unit-test, system integrate, verify, deploy, and operate hardware and software on spacecraft, platform, and/or payload(s) as defined by this SOW. These services shall involve, but not be limited to, mechanical, thermal, optics (including radiometrics and stray light), contamination, control, guidance, navigation, detector, electrical, electronics, and software aspects of flight and ground systems, including GSE.

3.8.2. Optical Design and Development Services

The Contractor shall provide optical design services, including the design, development, analysis, acquisition, assembly, integration and test, calibration, and performance testing. Efforts under this task may include geometric optical design, diffraction analysis, tolerancing of components, Gaussian beam analysis, interferometry, radiometry, stray light analysis, alignment and calibration, and optical systems design.

3.8.3. Specialized Detector and Array Services

The Contractor shall provide scientific and engineering services for sate-of-the-art detection systems requiring low noise levels and calibrations traceable to physical standards. The Contractor shall provide expertise to design, specify, acquire, assemble, maintain, retrofit, repair, and rework specialized detector assemblies for spaceflight and sounding rocket missions, including RF, millimeter, microwave, infrared, visible, X-Ray, Gamma-Ray, neutral and charged particle, nanotechnology, Charged Coupled Devices (CCD), calorimeters, radiometer, and optical sensor assemblies, along with wedge and strip type ultraviolet detectors. The Contractor shall provide electronic circuitry to simulate all detector interfaces. The Contractor shall design, develop, fabricate, and test subsystem- and system-level ground support equipment for spaceflight and sounding rocket payloads. All activities under this effort shall be accomplished in strict collaboration through direction of the COR to ensure the calibration and performance needs of the mission are maintained.

3.8.4. Integration and Test Services

The Contractor shall provide expertise, engineering test support, and supplies for the integration of payloads and experiments with the optical bench, sensors and detectors, and electro-mechanical components of the flight instrument. The Contractor shall prepare payload modifications when any

test items fails to meet flight specifications. The Contractor shall support test activities, including environmental, electromagnetic compatibility, shock and vibration, and Comprehensive Performance Testing. The Contractor shall develop and prepare test plans, test reports, and other documentation to facilitate execution of the project. Test programs shall be approved and shall identify the steps necessary to obtain the requisite data. The Contractor shall perform experimental and developmental tests using both common and mission-unique test equipment. The Contractor shall compile test results in approved formats for further analysis and inclusion within the final test reports.

3.8.5. Calibration

The Contractor shall provide scientific expertise, engineering test support, materials, and supplies for NRL scientists and engineers performing special calibrations and reducing the resultant data sets. The Contractor shall develop and maintain documentation to implement calibration requirements. The Contractor shall provide the engineering expertise to develop, fabricate, install, and maintain high-vacuum calibration chambers and related systems supporting the calibration of UV, solar irradiance, and similar instruments.

3.8.6. Payload Processing

The Contractor shall provide engineering test support and supplies for the integration of flight instruments and experimental payloads with the host vehicle. The Contractor shall provide pre-launch and post-launch flight instrument support.

3.9. General Laboratory Support

3.9.1. Laboratory Equipment and Facilities

The Contractor shall design, procure, fabricate, assemble, test, calibrate, and maintain specialized equipment, facilities, instrumentation, support equipment, and other related laboratory facilities used in the research and development of advanced analytical, engineering, integration, testing, and software for NRL projects and programs. These general laboratory support tasks shall include, but not be limited to, items supporting instrument systems performance modeling; X-Ray, Ultra-violet, optical, and infrared instrumentation; particle and field instrumentation; autonomous instrument systems; advanced spectrographic concepts; sensor signal processing systems; signal-to-noise analysis; calibration of advanced detectors in vacuum environments; signal sources; radiometry; computational image enhancement; science data formats; and science data distribution.

3.9.2. LAN/WAN Infrastructure

The Contractor shall provide the technical expertise, equipment, and supplies to maintain and upgrade local and wide area networks (LAN/WAN) to meet new requirements. The Contractor shall develop the specifications, acquire and install the hardware and software, perform preventive and corrective maintenance, and evaluate the current infrastructure for maintenance or upgrades to support scientific and experimental missions.

3.9.3. Computer System Support

The Contractor shall provide computer technology services and multi-platform computer system services, and network management to support computational requirements, including, but not limited to, data acquisition, processing, distribution, archival/storage, and measurement. This includes assisting with the determination of requirements for hardware and software procurements,

workstation acquisition, set up, administration, hardware, and software support for UNIX, Linux, and Windows-based systems. The Contractor shall provide computer support to use test instrumentation in aerospace system test and analysis, including GPIB, and IP based type of operation, GUI-based software systems, and web-based operator control systems.

3.9.4. Information Technology Security and System Administration

The Contractor shall provide Windows, Macintosh, Linux, UNIX, web, and LAN systems administration services to desktops, workstations and servers, that include, but are not limited to diagnosing and correcting system faults; configuring systems for performance, security, and network compatibility; performing operating system and application software updates; working with the cognizant NRL functions to plan and implement IT security initiatives; and assisting uses with software/hardware installation.

3.9.5. Webpage Development and Maintenance

The Contractor shall provide web page development services to help promote organizational capabilities. The Contractor shall work with NRL to define the look, feel, and content of the web sites. The Contractor shall develop, maintain, and upgrade secure project and program websites. The Contractor shall work with the cognizant NRL functions to comply with the applicable Department of Defense and NRL regulations, including 508 compliance, and post 9-11 accessibility requirements.

3.10. Mission Operations and Data Analysis

The Contractor shall provide the mission operations and the ground operations support required for scientific and experimental payloads. Activities shall include technical support to manage mission operations and flight operations, including mission planning. The Contractor shall support the development of special communications, computer security, tracking, or near real-time ground support requirements. The Contractor shall incorporate specific features into the flight and ground system design that lead to low-cost operation. The Contractor shall make maximum use of existing mission operations facilities and processes.

3.11. Systems Integration

3.11.1. Payload and Launch Processing

The Contractor shall support the requirements of the space vehicle integrating Contractor (SVIC) and the launch site integrating Contractor (LSIC) for systems safety, hazard analyses and reporting, experimental payload processing, and launch vehicle integration. These activities include reviewing facilities, assessing SVIC and LSIC requirements, and verifying that requirements are met. The Contractor shall coordinate with safety and logistical personnel to plan, document, and control the safety and procedural information necessary to ensure safe and efficient payload processing according to requirements set forth in launch range regulations. The Contractor shall support the experimental payload and launch vehicle working groups that address experiment and payload integration, safety training, launch processing, pre-flight and post-flight operations, and related activities.

3.11.2. Processing Procedures

The Contractor shall provide the appropriate documentation for the experimental payload to space vehicle and launch vehicle processing activities. This shall include hazard data, experiment

and space vehicle test plans and procedures, verifications, ground simulations, and functional tests supporting the processing and integration environment. The Contractor shall develop, maintain, and revise hazardous and non-hazardous operating procedures required by the SVIC and the LSIC.

3.11.3. Systems Safety Program

The Contractor shall apply safety engineering and safety management principles, criteria, and techniques to optimize safety and enhance mission effectiveness within the constraints of operational effectiveness, time, and cost. System safety activities shall stress early hazard identification, evaluation, and elimination or reduction of residual risk to preclude system damage or destruction and injury to personnel. The system safety program shall be conducted using launch site regulations.

3.12. Mission Assurance

For all levels of flight hardware and software provided by the Contractor, the NRL will establish requirements for a mission assurance program commensurate with flight instrumentation and experimental payload mission requirements. In all cases, these requirements will emphasize verification by test at the subsystem and system level. The Contractor shall establish and maintain practices, procedures, and processes that are consistent with NRL requirements. When tasked by the TDM, the Contractor shall provide Safety, Reliability, and Quality Assurance (SR&QA) to the NRL that include, but are not limited to, services in the following areas:

a) Electrical, Electromechanical, and Electronic (EEE) Parts: The Contractor shall implement a cost effective, tailored electronics parts program that includes the selection, qualification, acquisition, and correct application of electronic parts. The Contractor shall perform a parts engineering and procurement effort (including supplemental screening if required) for scientific and experimental payloads.

b) Quality Assurance: The Contractor's quality assurance (QA) program shall include policies, requirements, and activities during the design, fabrication, test, and delivery of flight instruments. The QA program shall emphasize quality tasks and their integration with the design, fabrication, and test phases, using guidelines approved by the COR for scientific and experimental payloads.

c) Reliability Assurance: The Contractor shall provide a reliability assurance program during the design, fabrication, test, and delivery of flight hardware. All flight hardware shall be designed to preclude the propagation of failures across interfaces. The Contractor shall identify specific upgrades to enhance flight hardware reliability during TIMS and designs reviews.

d) Change Management: The Contractor shall implement a streamlined and cost-effective change management process to ensure the orderly control of hardware and software produced during the development process. The Contractor shall provide an effective mechanism to incorporate change control.

e) Materials and Processes (M&P): The Contractor shall implement an M&P control program using guidelines approved by the COR for scientific and experimental payloads.

f) Contamination Control: The Contractor shall implement a tailored Contamination Control process to assure that flight hardware is not compromised due to molecular or particulate contamination.

g) Design Reviews: The Contractor shall conduct a series of major reviews for all flight electronics and GSE developed under this SOW. Reviews shall consist of a Preliminary Design Review (PDR), a Critical Design Review (CDR), and a Pre-Ship Review (PSR). Other reviews, required to comply with specific flight instrument needs, may be scheduled.

3.13. Systems Engineering and Project Management

When tasked by NRL, the Contractor shall provide systems engineering and project management (SEPM) services for select NRL projects, including the establishment of (a) systems engineering services for project development, reporting progress, and conformance with the appropriate practices and specifications; and (b) management organization that ensures all assigned task and project objectives are accomplished within specified schedule and cost constraints. The Contractor shall provide frequent and timely status to the NRL via cost, schedule, progress, and other reports during all phases of the work.

4.0 Personnel Qualifications

Detailed personnel qualifications are specified on Enclosure (1**)**

PERSONNEL QUALIFICATIONS

1. Sr. Program Manager (Key) – B.Sc., Engineering, Business, or Operations Research. Ten years of demonstrated experience desired in managing multiple project activities with a developmental program. Demonstrated experience in the planning, direction, and control of scientific development programs involving spaceflight instruments, experimental payloads or equivalent satellite systems. Demonstrated experience with spaceflight instrument definition and development in terms of formal responses to research announcements of opportunity. Demonstrated skills in program and acquisition planning (including scheduling, resources, and detailed budget preparation) for spaceflight instrument and satellite systems. Demonstrated management experience in the definition, design, and development of spaceflight instruments and satellite systems. Relevant experience with spaceflight instrument and satellite systems program planning, directing, and coordinating from concept formulation through final closeout. Specific experience with the technical program planning required to support the developmental process including risk analysis, engineering specialty integration, program reviews, technical performance measurement, interface control, and program planning. Proficient with cross-platform word processing, project management, scheduling, spreadsheet, and database programs.

2. Project Manager and Project Leader (Key) – B.Sc. Engineering, Physics, or Business. Eight years of demonstrated experience desired in the area of project management. Specific experience in the planning, direction, and program management of spaceflight instruments, experimental payloads, and satellite and sounding rocket systems. Relevant experience with spaceflight instrument and satellite systems program planning, directing, and coordinating from concept formulation through final closeout. Specific experience with the technical coordination process among Government, NASA, Co-contractor, Academic, and Industry personnel. Experience with the requirements for controlling information exchanges under the International Traffic in Arms Regulations (ITAR) and related defense trade acts. Relevant experience supporting the space vehicle integration process and experience with the appropriate guidelines and standards used for deriving safety hazards. Relevant experience with space vehicle integration guidelines, requirements, and standards used for deriving spaceflight instrument interface control, ground, and flight operation requirements. Specific experience interfacing with space vehicle and launch integration personnel, safety managers, and technical lead engineers to develop launch range documentation. Demonstrated experience with the fabrication and manufacture of prototype and limited production space-qualified instruments and payloads. Proficient with cross-platform word processing, project management, scheduling, spreadsheet, and database programs.

3. Scientist – Ph.D., Physical Sciences, Physics, or Mathematics. Eight years of demonstrated experience desired in the engineering development and design of optical sensors and scientific instrumentation. Experienced in the research, development, design, and fabrication of optical sensors and instrumentation for spaceflight and terrestrial scientific applications. Knowledgeable in various aspects of physical and geometrical optics including optical system design, aspheric optics, aberration theory, polarization analysis and design, optical coating design and characterization, optical filtering design and application (including ultra-narrow band optical filters), optical diffraction

and interferometry, and optical fibers. Experienced with image processing and modeling algorithms. Experience with software modeling and simulation tools, as well as the C, FORTRAN, C++, IDL and PV-Wave programming languages. Proficient with cross-platform word processing, spreadsheet, and database programs.

4. Guidance and Control Engineer (Key) – Ph.D., Physics, Mathematics. Four years of demonstrated experience desired in performing design, integration, and testing of gimbal system pointing and stabilization systems for rocket and spaceflight instrument applications. Must be able to generate performance predictions via simulation models (using one or more of the following: MATLAB, Matrix, FORTRAN, C code). Relevant experience with analytic efforts that include six degree of freedom and stability/control simulations for the purposes of determining transient and steady-state characteristics during all mission phases. Must be able to define and document hardware, software, sensor, and test requirements for control systems. Proficient with cross-platform word processing, spreadsheet, and database programs.

5. Sr. Systems Engineer (Key) – M.Sc. in Electrical Engineering. Ten years of demonstrated experience desired, or an equivalent combination of education and experience. Demonstrated experience performing System Engineering duties for spaceflight scientific instruments. Demonstrated capability to conceptualize, specify, model, and prototype analog and digital spaceflight instruments and related systems. Demonstrated experience, knowledge, and familiarity with hardware development programs for scientific spaceflight instrumentation and experimental payloads. Demonstrated experience, knowledge, and familiarity with software development for developing spaceflight instrument system and support equipment software routines. Demonstrated experience, knowledge, and familiarity with real-time software development including requirements analysis and systems programming for flight systems, including: telemetry and command; flight instrument control and pointing; processor selection support, timing and sizing estimates, and costing; and interface analysis. Demonstrated experience with Reduced Instruction Set Computing (RISC) processors, Field Programmable Gate Arrays (FPGA), Application Specific Integrated Circuits (ASIC) for spaceflight, and their developmental systems, including the design of support equipment processors and telemetry displays. Relevant experience with digital signal processing (DSP) chipsets and their development systems. Relevant experience with developing support equipment for testing spaceflight hardware and software in an operational satellite environment, including ground support software, digital motor control systems, and specialized telemetry formatting and documentation equipment. Demonstrated capabilities with C/C++, VHDL, and related software design tools. Proficient with cross-platform word processing, spreadsheet, and database programs.

6. Sr. Engineer, Software – B.Sc., Engineering, Physical Sciences, Mathematics, or the equivalent. Ten years of demonstrated experience desired, knowledge and familiarity with real-time scientific software algorithms supporting flight instrumentation development programs. Demonstrated experience, knowledge, and familiarity with real-time software development including requirements analysis and systems programming for flight systems, including: telemetry and command; image processing; flight instrument control and pointing; processor selection support, timing and sizing estimates, and costing; interface analysis, and algorithm development. Specific knowledge to perform

systems analysis, simulation, algorithm design, and system evaluation required to design and implement complex real-time software systems using assembly, C/C++, and FORTRAN programming languages on a variety of spaceflight and ground processors. Specific experience with MIL-STD-1553 standard data bus and VME-based flight controller systems. Relevant experience with digital hardware and software test beds for space vehicle simulators that have the capability to evaluate and resolve hardware/software compatibility problems occurring during the developmental process. Strong background in Computer Aided Engineering, Computer Aided Design, and Automated Test Equipment (CAE/CAD/ATE). Proficient with PC and Macintosh cross-platform word processing, spreadsheet, and database programs and C/C++.

7. Engineer, Software (Key) – B.Sc., Engineering, Physics, Computer Science, Mathematics, or the equivalent Five years of demonstrated experience desired, knowledge and familiarity with real-time software development including requirements analysis and systems programming for flight systems, including: telemetry and command; flight instrument control and pointing; processor selection support, timing and sizing estimates, and costing; interface analysis, and algorithm development. Specific experience with MIL-STD-1553 standard data bus and VME-based flight controller systems. Relevant experience with digital hardware and software test beds for space vehicle simulators that have the capability to evaluate and resolve hardware/software compatibility problems occurring during the developmental process. Strong background in Computer Aided Engineering, Computer Aided Design, and Automated Test Equipment (CAE, CAD, ATE). The candidate shall have demonstrated experience, knowledge, and familiarity with the analysis, research, design, development, test, and evaluation of complex digital hardware and software development programs. Specific experience with requirements analysis and systems programming for ground systems, including: command and telemetry processing and display; payload pointing and control; data archive, analysis, and distribution; FORTRAN, C/C++, Ada, and assembly language programming; and VAX/VMS. Proficient with cross-platform word processing, spreadsheet, and database programs. Demonstrated capabilities with and computer aided software design tools.

8. Sr. Engineer, Hardware (Key) – B.Sc., Electrical Engineering, Physical Sciences, Mathematics, or the equivalent. Five years of demonstrated experience desired in specifying, developing, and documenting spaceflight instrument electronics, conducting systems level environmental and reliability tests; documenting acceptance tests in formal plans and procedures; and planning and conducting tests. Specific design engineering experience related to the electrical analysis, design, integration, and test of interface and data handling electronics for MIL-STD-1553 and VME-based systems. Specific experience using digital and analog circuitry, i80xxx microprocessors, and digital signal processing (DSP) chipsets. Relevant design experience with printed wiring board design, layout, integration, and testing. Proficient with cross-platform word processing, spreadsheet, CAD/CAE and database programs.

9. Electronics Engineer, General Design Support – B.Sc., Electrical Engineering, Physical Sciences, Mathematics, or the equivalent. Five years of demonstrated experience desired in specifying, developing, and documenting spaceflight instrument electronics, conducting systems level environmental and reliability tests; documenting acceptance tests in formal plans and procedures;

and planning and conducting tests. Specific design engineering experience related to the electrical analysis, design, integration, and test of interface and data handling electronics for MIL-STD-1553 and VME-based systems. Specific experience using digital and analog circuitry, i80xxx microprocessors, and digital signal processing (DSP) chipsets. Relevant design experience with printed wiring board design, layout, integration, and testing. Proficient with cross-platform word processing, spreadsheet, CAD/CAE and database programs.

10. Mechanical Engineer, General Design Support – Associates Degree in Engineering Technology or the equivalent. Five years of demonstrated experience desired in specifying, developing, and documenting spaceflight instrument enclosures, chassis designs, printed wiring board designs, and equipment layouts. Specific experience on support equipment racks and interconnects diagrams. Specific experience in designing, planning, documenting, and installing complex ground enclosures for flight instrument command and control during flight operations, including wiring interconnects, power distribution, video and audio routing and distribution, and chassis design. Specific experience with AutoCad or ProE CAE/CAD programs. Proficient with cross-platform word processing, spreadsheet, and database programs.

11. Engineer, Parts Procurement (Key) – B. Sc. Physics, Electrical Engineering, or the equivalent. Seven years of demonstrated experience desired in parts procurement and selection of EEE and non-EEE parts for spaceflight instruments and GSE systems. Demonstrated familiarity with Military Specifications and NASA parts procurement plans and requirements. Demonstrated experience with procurement of EEE parts and development of parts procurement screening requirements. Familiarity with NASA Handbook NHB5300.4 and related materials outgassing specifications. Demonstrated experience with the high-reliability parts acquisition process. Demonstrated experience developing parts lists and component requirement reviews using spreadsheet and database programs. Proficient with cross-platform word processing, spreadsheet, and database programs.

12. Project Analyst – B.Sc. Engineering, Physical Sciences, Mathematics, or the equivalent. Five years of demonstrated experience desired in analysis, systems integration, and implementation of a spaceflight instruments and experimental payloads. Specific experience developing systems and subsystem level schedules, planning payload and launch activities, and developing program controls and procedures. Working knowledge of Military Specifications and requirements. Relevant experience in spacecraft systems test and integration. Proficient with cross-platform word processing, scheduling, spreadsheet, and database programs.

13. Sr. Engineering Technician – Associates Degree in Engineering Technology or the equivalent. Five years of demonstrated experience in the design, fabrication, and testing of spaceflight instrumentation and its related GSE in a laboratory environment. Specific knowledge in the troubleshooting and repair of analog and digital components, including i80xxx and ADSP-2100 microprocessor based flight instruments. Relevant experience with the design, fabrication and assembly of surface mount technologies for printed wiring board applications. Relevant experience

with maintaining, operating and refurbishing High Vacuum Chambers and their associated vacuum system components and GSE. Experiences with cable harnessing for spaceflight applications. Experience with software development to support spaceflight and support equipment applications. Proficient with cross-platform word processing, spreadsheet, and database programs.

14. Sr. Technical Writer/Editor – BA or B.Sc. in Engineering, Journalism, Economics, English, or the equivalent. Five years of experience with demonstrated capability to coordinate, prepare, edit, and proof technical specifications, plans, procedures, and documents related to spaceflight instrumentation and experimental payloads. Demonstrated experience managing and responding to formal responses under the requirements of research announcements of opportunity. Working knowledge of the requirements for hardware and software documentation using DoD STD-2167A and MIL-STD-498 in a tailored laboratory environment. Demonstrated capability to collect, compile, and track technical data and comments thereto, to include the documentation and tracking of CDRLs using automated tools. Proficient with cross-platform word processing, spreadsheet, and database programs.

15. Graphics Artist Support – Degree in art/design/multimedia/graphics and two years of experience desired, or an equivalent combination of education and experience. Demonstrated experience developing and executing graphical and multimedia designs to meet the needs of engineers and scientists. Demonstrated capabilities to digitize media, text, images, photos, audio, and video and organize these into the appropriate categories. Strong skills in technical illustration. Ability to provide proof-of-concept illustrations in rough and final sketches for graphic and multimedia needs and to execute these into digital format for print, CD-ROM, or web based projects. Ability to assist in translating the needs of the scientist into visual and multimedia designs, searching the web for digital art and design resources, and supporting artwork for web development. Demonstrated ability with applications for graphical and multimedia design, particularly with Adobe Photoshop/Illustrator. Some exposure to web design principles. Some experience with databases. Proficient with cross-platform word processing, spreadsheet, and database programs.

16. Administrative and Clerical Support – High School Degree or the equivalent. Three years of experience desired. Demonstrated experience with non-technical writing, word-processing, proofreading, general computer art, paste-ups, database maintenance, and reference checking. Proficient with cross-platform word processing, spreadsheet, and database programs.

17. Senior Intranet and Networking Specialist – B.A. or B.Sc., Engineering, Computer Science, Graphic Design, or the equivalent with six years of directly related experience desired in the specification and setup of domains, severs, telecommunications networks, remote access systems, and mail servers. Working knowledge of Java, JavaScript, PHP, and PERL to support networking solutions. Working knowledge of web page authoring tools, coupled with a demonstrated capability to develop graphically oriented solutions to internal Intranet needs. Demonstrated capability to interface databases with browser applications. Demonstrated capability to design, develop, program, and

maintain custom home pages supporting a variety of links and types of content, including audio, animation, and text.

18. Intranet and Networking Specialist – B.A. or B.S.c., Engineering, Engineering, Computer Science, Graphic Design, or the equivalent with two years of directly related experience desired in assisting in the setup of domains, servers, telecommunications networks , remote access systems, and mail servers. Demonstrated ability to support both PC and Macintosh users for the installation and testing of operating systems and software applications. Working knowledge of Java, JavaScript, PHP, and PERL to support networking solutions. Working knowledge of web page authoring tools coupled with a demonstrated capability to develop graphically oriented solutions to internal Intranet needs. Demonstrated capability to design, develop, program, and maintain custom home pages supporting a variety of links and types of content, including audio, animation, and text

CONTRACT DATA REQUIREMENTS LIST

Form Approved
OMB No. 0704-0188

A. CONTRACT LINE ITEM NO.	B. EXHIBIT	C. CATEGORY:
0002	A	TDP _____ TM _____ OTHER _____

D. SYSTEM/ITEM	E. CONTRACT/PR NO.	F. CONTRACTOR
	76-0074-05	

Block 1

1. DATA ITEM NO.	2. TITLE OF DATA ITEM	3. SUBTITLE	17. PRICE GROUP
A001	Monthly Financial Summary Report (MFSR)		18. ESTIMATED TOTAL PRICE

4. AUTHORITY *(Data Acquisition Document No.)*	5. CONTRACT REFERENCE	6. REQUIRING OFFICE
	Statement of Work (SOW) 3.1	COR (See Section G-2)

7. DD 250 REQ	9. DIST STATEMENT REQUIRED	10. FREQUENCY	12. DATE OF FIRST SUBMISSION
8. APP CODE		11. AS OF DATE	13. DATE OF SUBSEQUENT SUBMISSION
		Monthly	*
		*	*

14. DISTRIBUTION	b. COPIES		
a. ADDRESSEE	Draft	Final Reg	Final Repro
NRL Code 7601		1	
15. TOTAL →	0	1	0

16. REMARKS

*MFSR to be delivered by the 15th work day of the second month after award and the 10th day of every month thereafter. Electronic transfer of the Monthly Financial Report Data is required. Formats approved by COR.

Block 2

1. DATA ITEM NO.	2. TITLE OF DATA ITEM	3. SUBTITLE	17. PRICE GROUP
A002	Quarterly Status Reports (QSR)		18. ESTIMATED TOTAL PRICE

4. AUTHORITY *(Data Acquisition Document No.)*	5. CONTRACT REFERENCE	6. REQUIRING OFFICE
	SOW 3.1	COR (See Section G)

7. DD 250 REQ	9. DIST STATEMENT REQUIRED	10. FREQUENCY	12. DATE OF FIRST SUBMISSION
8. APP CODE		11. AS OF DATE	13. DATE OF SUBSEQUENT SUBMISSION
		Quarterly	*
		*	*

14. DISTRIBUTION	b. COPIES		
a. ADDRESSEE	Draft	Final Reg	Final Repro
NRl Code 7601		1	
15. TOTAL →	0	1	0

16. REMARKS

* QSR to be submitted 90 days after award and every 90 days thereafter. In accordance with SOW 3.1 and as required by the COR. Shall be in Contractor's format as approved by the COR.

Block 3

1. DATA ITEM NO.	2. TITLE OF DATA ITEM	3. SUBTITLE	17. PRICE GROUP
A003	Monthly Contractor On-Site Labor Report		18. ESTIMATED TOTAL PRICE

4. AUTHORITY *(Data Acquisition Document No.)*	5. CONTRACT REFERENCE	6. REQUIRING OFFICE
	SOW 3.1	COR (See Section G)

7. DD 250 REQ	9. DIST STATEMENT REQUIRED	10. FREQUENCY	12. DATE OF FIRST SUBMISSION
8. APP CODE		11. AS OF DATE	13. DATE OF SUBSEQUENT SUBMISSION
		Monthly	*
		*	*

14. DISTRIBUTION	b. COPIES		
a. ADDRESSEE	Draft	Final Reg	Final Repro
NRl Code 7601		1	
15. TOTAL →	0	1	0

16. REMARKS

*MCLOR to be delivered by the 5th day of the second month after award and the 5th day of every month thereafter. In accordance with SOW 3.1 and as required by the COR. Shall be in Contractor's format as approved by the COR.

Block 4

1. DATA ITEM NO.	2. TITLE OF DATA ITEM	3. SUBTITLE	17. PRICE GROUP
A004	Progress/Scientific and Technical Reports		18. ESTIMATED TOTAL PRICE

4. AUTHORITY *(Data Acquisition Document No.)*	5. CONTRACT REFERENCE	6. REQUIRING OFFICE
	SOW 3.1	COR (See Section G)

7. DD 250 REQ	9. DIST STATEMENT REQUIRED	10. FREQUENCY	12. DATE OF FIRST SUBMISSION
8. APP CODE		11. AS OF DATE	13. DATE OF SUBSEQUENT SUBMISSION
		As Required	*
		*	*

14. DISTRIBUTION	b. COPIES		
a. ADDRESSEE	Draft	Final Reg	Final Repro
NRl Code 7601		1	
15. TOTAL →	0	1	0

16. REMARKS

*As required by the COR, submitted periodically for the purpose of reporting progress, may be in the form of technical reports and/or presentations.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
NRl Code 7601			

CONTRACT DATA REQUIREMENTS LIST

Form Approved
OMB No. 0704-0188

A. CONTRACT LINE ITEM NO.	B. EXHIBIT	C. CATEGORY:
0002	A	TDP _____ TM _____ OTHER _____

D. SYSTEM/ITEM	E. CONTRACT/PR NO.	F. CONTRACTOR
	76-0074-05	

1. DATA ITEM NO.	2. TITLE OF DATA ITEM	3. SUBTITLE	17. PRICE GROUP
A005	Presentation and Briefing Materials		18. ESTIMATED TOTAL PRICE

4. AUTHORITY *(Data Acquisition Document No.)*	5. CONTRACT REFERENCE	6. REQUIRING OFFICE
		COR (See Section G)

7. DD 250 REQ	9. DIST STATEMENT REQUIRED	10. FREQUENCY	12. DATE OF FIRST SUBMISSION	14. DISTRIBUTION
		*	*	a. ADDRESSEE
8. APP CODE		**11. AS OF DATE**	**13. DATE OF SUBSEQUENT SUBMISSION**	
		Cont Award	*	

a. ADDRESSEE	b. COPIES		
	Draft	Final	
		Reg	Repro
		1	
15. TOTAL →	0	1	0

16. REMARKS
The Contractor shall provide ideas and concepts being presented using textual elements as required by technical direction memornadum.

1. DATA ITEM NO.	2. TITLE OF DATA ITEM	3. SUBTITLE	17. PRICE GROUP
A006	Technical Design Packages		18. ESTIMATED TOTAL PRICE

4. AUTHORITY *(Data Acquisition Document No.)*	5. CONTRACT REFERENCE	6. REQUIRING OFFICE
		COR (See Section G)

7. DD 250 REQ	9. DIST STATEMENT REQUIRED	10. FREQUENCY	12. DATE OF FIRST SUBMISSION	14. DISTRIBUTION
		*	*	a. ADDRESSEE
8. APP CODE		**11. AS OF DATE**	**13. DATE OF SUBSEQUENT SUBMISSION**	
		Cont Award	*	

a. ADDRESSEE	b. COPIES		
	Draft	Final	
		Reg	Repro
		1	
15. TOTAL →	0	1	0

16. REMARKS
*The contractor shall provide Technical Design Packages as required by technical direction memorandum and following guidelines of DoD-STD-2167 and MIL-STD-498.

1. DATA ITEM NO.	2. TITLE OF DATA ITEM	3. SUBTITLE	17. PRICE GROUP
A007	Software and Design Documentation		18. ESTIMATED TOTAL PRICE

4. AUTHORITY *(Data Acquisition Document No.)*	5. CONTRACT REFERENCE	6. REQUIRING OFFICE
		COR (See Section G)

7. DD 250 REQ	9. DIST STATEMENT REQUIRED	10. FREQUENCY	12. DATE OF FIRST SUBMISSION	14. DISTRIBUTION
		As Required	*	a. ADDRESSEE
8. APP CODE		**11. AS OF DATE**	**13. DATE OF SUBSEQUENT SUBMISSION**	
		Cont Award	*	

a. ADDRESSEE	b. COPIES		
	Draft	Final	
		Reg	Repro
NRL Code 7601		1	
15. TOTAL →	0	1	0

16. REMARKS
*Shall include computer programs, object, source and executable code and final user documentation of any software provided under this contract. Delivery shall be made as required by the COR.

1. DATA ITEM NO.	2. TITLE OF DATA ITEM	3. SUBTITLE	17. PRICE GROUP
A008	Contract Final Report		18. ESTIMATED TOTAL PRICE

4. AUTHORITY *(Data Acquisition Document No.)*	5. CONTRACT REFERENCE	6. REQUIRING OFFICE
	Section 3.1.3	COR (See Section G-2)

7. DD 250 REQ	9. DIST STATEMENT REQUIRED	10. FREQUENCY	12. DATE OF FIRST SUBMISSION	14. DISTRIBUTION
YES		One Time	*	a. ADDRESSEE
8. APP CODE		**11. AS OF DATE**	**13. DATE OF SUBSEQUENT SUBMISSION**	
		*		

a. ADDRESSEE	b. COPIES		
	Draft	Final	
		Reg	Repro
NRL Code 7601		1	
15. TOTAL →	0	1	0

16. REMARKS
*The contractor shall provide a Final Report within sixty days from contract completion. The report shall contain a comprehensive summary of activities, findings and deliverables under this contract. DD250 required for acceptance.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
NRl Code 7601			

CONTRACT DATA REQUIREMENTS LIST
(1 Data Item)

Form Approved
OMB No. 0704-0188

A. CONTRACT LINE ITEM NO.	B. EXHIBIT	C. CATEGORY:
0002	A	TDP _____ TM _____ OTHER _____

D. SYSTEM/ITEM	E. CONTRACT/PR NO.	F. CONTRACT
	76-0074-05	

1. DATA ITEM NO.	2. TITLE OF DATA ITEM	3. SUBTITLE
A009	Contractor On-Site Labor Report	

4. AUTHORITY *(Data Acquisition Document No.)*	5. CONTRACT REFERENCE	6. REQUIRING OFFICE
N/A		NRL CODE

7. DD 250 REQ	9. DIST STATEMENT REQUIRED	10. FREQUENCY	12. DATE OF FIRST SUBMISSION
LT	N/A	MNTLY	30 DAC

8. APP CODE	11. AS OF DATE	13. DATE OF SUBSEQUENT SUBMISSION
N/A		

16. REMARKS

The Contractor shall deliver the On-Site Labor Report no later than five (5) days after the end of each reporting month. The report must include as a minimum the following data:

Reporting Period:
Contract Number (and Order Number, if applicable):
Contract Value:
Current Funding:
Amount Expended in Current Period:
Total Expended to Date:
Date Submitted:

Labor (including subcontractors) - Show employee name, number of hours, and total amount billed for contractor employees working on-site at NRL. If the contractor employees worked on multiple tasks (as defined by the COR), the numbers of hours worked on each task must be shown separately.

14. DISTRIBUTION

a. ADDRESSEE	b. COPIES		
	Draft	Final	
		Reg	Repro
COR	0	1	0
AO	0	1	0
15. TOTAL →	0	2	0

17. PRICE GROUP

18. ESTIMATED TOTAL PRICE

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
NRl Code 7601			

DEPARTMENT OF DEFENSE
CONTRACT SECURITY CLASSIFICATION SPECIFICATION

(The requirements of the DoD Industrial Security Manual apply to all security aspects of this effort.)

1. CLEARANCE AND SAFEGUARDING SER: 071-04

a. FACILITY CLEARANCE REQUIRED: TOP SECRET

b. LEVEL OF SAFEGUARDING REQUIRED: NONE

2. THIS SPECIFICATION IS FOR: *(X and complete as applicable)*

	a. PRIME CONTRACT NUMBER	
	b. SUBCONTRACT NUMBER	
X	c. SOLICITATION OR OTHER NUMBER: 76-0074-05	DUE DATE *(YYYYMMDD)*

3. THIS SPECIFICATION IS: *(X and complete as applicable)*

X	a. ORIGINAL *(Complete date in all cases)*		DATE *(YYYYMMDD)*: 20041203
	b. REVISED *(Supersedes all previous specs)*	REVISION NO.	DATE *(YYYYMMDD)*
	c. FINAL *(Complete Item 5 in all cases)*		DATE *(YYYYMMDD)*

4. IS THIS A FOLLOW-ON CONTRACT? [ ] YES [X] NO. If Yes, complete the following:

Classified material received or generated under _____ *(Preceding Contract Number)* is transferred to this follow-on contract.

5. IS THIS A FINAL DD FORM 254? [ ] YES [X] NO. If Yes, complete the following:

In response to the contractor's request dated _____, retention of the classified material is authorized for the period of _____

6. CONTRACTOR *(Include Commercial and Government Entity (CAGE) Code)*

a. NAME, ADDRESS, AND ZIP CODE	b. CAGE CODE	c. COGNIZANT SECURITY OFFICE *(Name, Address, and Zip Code)*
FOR RFP PURPOSES ONLY, NOT VALID FOR ACTUAL CONTRACT AWARD		N/A

7. SUBCONTRACTOR

a. NAME, ADDRESS, AND ZIP CODE	b. CAGE CODE	c. COGNIZANT SECURITY OFFICE *(Name, Address, and Zip Code)*
N/A		N/A

8. ACTUAL PERFORMANCE

a. LOCATION	b. CAGE CODE	c. COGNIZANT SECURITY OFFICE *(Name, Address, and Zip Code)*
N/A		N/A

9. GENERAL IDENTIFICATION OF THIS PROCUREMENT

RESEARCH AREAS OF UPPER AIR PHYSICS, ASTRONOMY, ASTROPHYSICS, AND REMOTE GEO-SENSING

10. CONTRACTOR WILL REQUIRE ACCESS TO:	YES	NO
a. COMMUNICATIONS SECURITY (COMSEC) INFORMATION	X	
b. RESTRICTED DATA		X
c. CRITICAL NUCLEAR WEAPON DESIGN INFORMATION		X
d. FORMERLY RESTRICTED DATA		X
e. INTELLIGENCE INFORMATION		
(1) Sensitive Compartmented Information (SCI)		X
(2) Non-SCI		X
f. SPECIAL ACCESS INFORMATION		X
g. NATO INFORMATION		X
h. FOREIGN GOVERNMENT INFORMATION		X
i. LIMITED DISSEMINATION INFORMATION		X
j. FOR OFFICIAL USE ONLY INFORMATION		X
k. OTHER *(Specify)*		

11. IN PERFORMING THIS CONTRACT, THE CONTRACTOR WILL:	YES	NO
a. HAVE ACCESS TO CLASSIFIED INFORMATION ONLY AT ANOTHER CONTRACTOR'S FACILITY OR A GOVERNMENT ACTIVITY	X	
b. RECEIVE CLASSIFIED DOCUMENTS ONLY		X
c. RECEIVE AND GENERATE CLASSIFIED MATERIAL		X
d. FABRICATE, MODIFY, OR STORE CLASSIFIED HARDWARE		X
e. PERFORM SERVICES ONLY		X
f. HAVE ACCESS TO U.S. CLASSIFIED INFORMATION OUTSIDE THE U.S., PUERTO RICO, U.S. POSSESSIONS AND TRUST TERRITORIES		X
g. BE AUTHORIZED TO USE THE SERVICES OF DEFENSE TECHNICAL INFORMATION CENTER (DTIC) OR OTHER SECONDARY DISTRIBUTION CENTER		X
h. REQUIRE A COMSEC ACCOUNT		X
i. HAVE TEMPEST REQUIREMENTS		X
j. HAVE OPERATIONS SECURITY (OPSEC) REQUIREMENTS		X
k. BE AUTHORIZED TO USE THE DEFENSE COURIER SERVICE		X
l. OTHER *(Specify)*		

DD FORM 254, DEC 1999 PREVIOUS EDITION IS OBSOLETE.

Reset

12. PUBLIC RELEASE. Any information *(classified or unclassified)* pertaining to this contract shall not be released for public dissemination except as provided by the Industrial Security Manual or unless it has been approved for public release by appropriate U.S. Government authority. Proposed public releases shall be submitted for approval prior to release [ ] Direct [X] Through *(Specify)*

COMMANDING OFFICER, NAVAL RESEARCH LABORATORY, WASHINGTON, DC 20375-5320, CODE 7601

to the Directorate for Freedom of Information and Security Review, Office of the Assistant Secretary of Defense (Public Affairs)* for review.
*In the case of non-DoD User Agencies, requests for disclosure shall be submitted to that agency.

13. SECURITY GUIDANCE. The security classifiection guidance needed for this classified effort is identified below. If any difficulty is encountered in applying this guidance or if any other contributing factor indicates a need for changes in this guidance, the contractor is authorized and encouraged to provide recommended changes; to challenge the guidance or the classification assigned to any information or material furnished or generated under this contract; and to submit any questions for interpretation of this guidance to the official identified below. Pending final decision, the information involved shall be handled and protected at the highest level of classification assigned or recommended. *(Fill in as appropriate for the classified effort. Attach, or forward under separate correspondence, any documents/guides/extracts referenced herein. Add additional pages as needed to provide complete guidance.)*

Access to classified information is not required for the purpose of submitting a bid/proposal for this statement of work. However, prior to award of contract, the successful contractor will be required to have a TOP SECRET facility clearance, and contractor personnel assigned to this contract must be US citizens, and have a final DoD adjudicated security clearance commensurate with level of access required for the performance of this contract.

14. ADDITIONAL SECURITY REQUIREMENTS. Requirements, in addition to ISM requirements, are established for this contract. [ ] Yes [X] No
(If Yes, identify the pertinent contractual clauses in the contract document itself, or provide an appropriate statement which identifies the additional requirements. Provide a copy of the requirements to the cognizant security office. Use Item 13 if additional space is needed.)

15. INSPECTIONS. Elements of this contract are outside the inspection responsibility of the cognizant security office. [ ] Yes [X] No
(If Yes, explain and identify specific areas or elements carved out and the activity responsible for inspections. Use Item 13 if additional space is needed.)

16. CERTIFICATION AND SIGNATURE. Security requirements stated herein are complete and adequate for safeguarding the classified information to be released or generated under this classified effort. All questions shall be referred to the official named below.

a. TYPED NAME OF CERTIFYING OFFICIAL	b. TITLE	c. TELEPHONE *(Include Area Code)*
SHELIA NEAL	CONTRACTING OFFICER, SECURITY	(202) 767-2240/2391

d. ADDRESS *(Include Zip Code)*
NAVAL RESEARCH LABORATORY
4555 OVERLOOK AVE. SW
WASHINGTON, DC 20375-5320

e. SIGNATURE
Shelia Neal

17. REQUIRED DISTRIBUTION

[X]	a. CONTRACTOR
[ ]	b. SUBCONTRACTOR
[X]	c. COGNIZANT SECURITY OFFICE FOR PRIME AND SUBCONTRACTOR
[ ]	d. U.S. ACTIVITY RESPONSIBLE FOR OVERSEAS SECURITY ADMINISTRATION
[ ]	e. ADMINISTRATIVE CONTRACTING OFFICER
[X]	f. OTHERS AS NECESSARY 1226.2, 7601, 7602